HCD-DX10/RG4SR/RG20/RG30T

SERVICE MANUAL

Ver 1.2 2003. 11

Photo : HCD-DX10

US Model
HCD-RG4SR/RG20/RG30T
Canadian Model
HCD-RG20/RG30T
AEP Model
UK Model
HCD-RG20
E Model
Australian Model
HCD-DX10

- HCD-DX10/RG4SR/RG20/RG30T is the tuner, deck, CD and amplifier section in MHC-DX10/RG4SR/RG20/RG30T.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM58F-K6
	Optical Pick-up Name	KSM-213D
Tape deck Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	CWL44FF29

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS:
(HCD-RG4SR USA model only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

with 6 ohm loads both channels driven, from 120 – 10,000 Hz; rates 100 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

Total harmonic distortion less than 0.07% (6 ohms at 1 kHz, 50 W)

(HCD-RG30T USA model only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

with 6 ohm loads both channels driven, from 120 – 10,000 Hz; rates 75 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

Total harmonic distortion less than 0.07% (6 ohms at 1 kHz, 30 W)

(HCD-RG20 USA model only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

with 6 ohm loads both channels driven, from 120 – 10,000 Hz; rates 60 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

Total harmonic distortion less than 0.07% (6 ohms at 1 kHz, 30 W)

Amplifier section

Canadian models:
HCD-RG30T
Continuous RMS power output (reference) 75 + 75 watts (6 ohms at 1 kHz, 10% THD)
Total harmonic distortion less than 0.07% (6 ohms at 1 kHz, 50 W)

HCD-RG20
Continuous RMS power output (reference) 60 + 60 watts (6 ohms at 1 kHz, 10% THD)
Total harmonic distortion less than 0.07% (6 ohms at 1 kHz, 30 W)

European model:
HCD-RG20
DIN power output (rated) 40 + 40 watts (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference) 50 + 50 watts (6 ohms at 1 kHz, 10% THD)
Music power output (reference) 95 + 95 watts (6 ohms at 1 kHz, 10% THD)

Other model:
HCD-DX10
The following measured at AC 120, 220, 240 V 50/60 Hz
DIN power output (rated) 40 + 40 watts (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference) 50 + 50 watts (6 ohms at 1 kHz, 10% THD)

Inputs
GAME (AUDIO) IN (phono jack): voltage 450 mV, impedance 47 kilohms
Outputs
PHONES (stereo mini jack): accepts headphones of 8 ohms or more
Front speaker: accepts impedance of 6 to 16 ohms
Surround speaker (HCD-RG4SR only): accepts impedance of 6 to 16 ohms

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser (λ=780 nm) Emission duration: continuous
Frequency response	2 Hz – 20 kHz (±0.5 dB)
Wavelength	780 – 790 nm
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB

Tape deck section

Recording system	4-track 2-channel stereo
Frequency response	40 – 13,000 Hz (±3 dB), using Sony TYPE I cassette

— Continued on next page —

MINI HIFI COMPONENT SYSTEM

9-873-225-03
2003K16-1
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Sony Corporation
Home Audio Company
Published by Sony Engineering Corporation

SONY®

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	
Pan-American models:	530 – 1,710 kHz (with the interval set at 10 kHz) 531 – 1,710 kHz (with the interval set at 9 kHz)
European and Middle Eastern models:	531 – 1,602 kHz (with the interval set at 9 kHz)
Other models:	531 – 1,602 kHz (with the interval set at 9 kHz) 530 – 1,710 kHz (with the interval set at 10 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements	
North American models:	120 V AC, 60 Hz
European models:	230 V AC, 50/60 Hz
Australian models:	230 – 240 V AC, 50/60 Hz
Mexican models:	120 V AC, 50/60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	
USA models:	
HCD-RG4SR:	160 watts
HCD-RG30T:	115 watts
HCD-RG20:	95 watts
Canadian models:	
HCD-RG30T:	115 watts
HCD-RG20:	95 watts
European model:	
HCD-RG20:	85 watts 1.0 watts (at the Power Saving Mode)
Other model:	
HCD-DX10:	85 watts
Dimensions (w/h/d)	Approx. 280 × 325 × 421 mm
Mass	
North American models:	
HCD-RG4SR:	Approx. 8.7 kg
HCD-RG30T:	Approx. 8.2 kg
HCD-RG20:	Approx. 7.8 kg
European model:	
HCD-RG20:	Approx. 8.1 kg
Other model:	
HCD-DX10:	Approx. 8.2 kg

Design and specifications are subject to change without notice.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer: Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.

2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

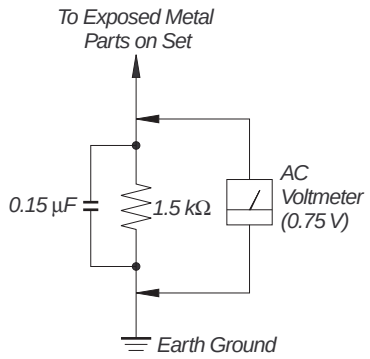

Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing
- Keep the temperature of soldering iron around 270˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

- Abbreviation
  CND : Canadian model
  AUS : Australian model
  AR : Argentina model
  SP : Singapore model
  TW : Taiwan model
  MX : Mexican model
  MY : Malaysia model
  E2 : 120V AC Area in E model
  E3 : 240V AC Area in E model
  E51 : Chilean and Peruvian model

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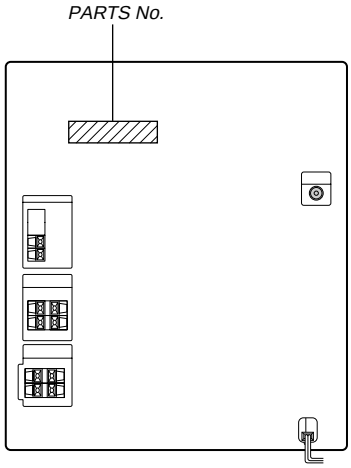
MODEL IDENTIFICATION
— BACK PANEL —

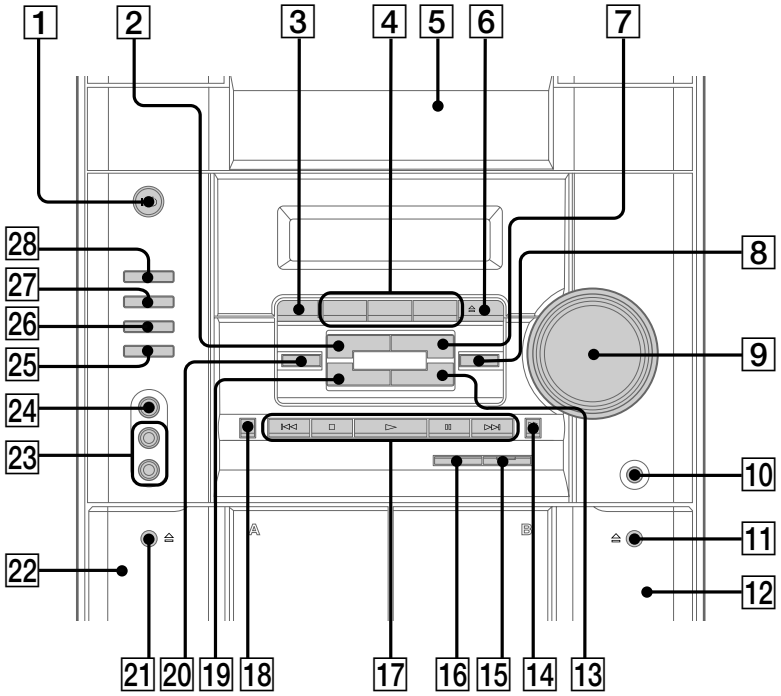


MODEL	PARTS No.
RG20: US, CND models	4-234-701-0☐
RG20: AEP, UK models	4-234-701-1☐
DX10: E2, E3, E51, TW models	4-234-701-2☐
DX10: AUS, AR, MX models	4-234-701-3☐
RG30T	4-234-701-4☐
RG4SR	4-234-701-5☐
DX10: MY, SP models	4-234-701-6☐

SECTION 1
GENERAL

This section is extracted from instruction manual.

Main unit

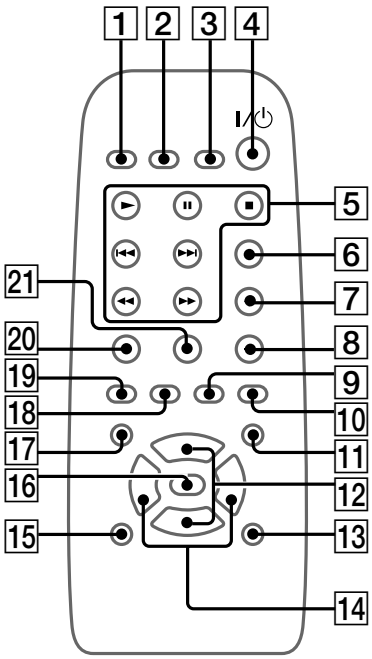


AUDIO jacks 23 (19)
CD 28 (10 – 12, 15)
CD SYNC 16 (15)
Deck A 22 (14)
Deck B 12 (14 – 16)
DISC 1 – 3 4 (10, 11)
DISC SKIP EX-CHANGE 3 (10, 11)
Disc tray 5 (10)
DISPLAY 20 (12)
EFFECT ON/OFF 13 (17)
GAME 25 (18 – 20)
GAME EQ 19 (17, 18, 20)
GROOVE 8 (17)
MOVIE EQ 7 (17)
MUSIC EQ 2 (17)
PHONES jack 10
REC PAUSE/START 15 (15)
TAPE A/B 26 (14, 15)
TUNER/BAND 27 (12, 13, 15)
VIDEO jack 24 (19, 20)
VOLUME control 9

BUTTON DESCRIPTIONS

I/⏻ (power) 1
⏏ OPEN/CLOSE 6
⏏ (deck B) 11
▶▶ (fast forward) 14
I◀◀ (go back) 17
▶▶I (go forward) 17
II (pause) 17
▷ (play) 17
■ (stop) 17
◀◀ (rewind) 18
⏏ (deck A) 21

Remote Control



CD 19 (10 – 12, 15)
CLEAR 20 (11)
CLOCK/TIMER SELECT 2 (16, 19)
CLOCK/TIMER SET 3 (9, 16, 18)
DISPLAY 6 (12)
D.SKIP 7 (10)
ENTER 15 (9, 11 – 13, 16, 18, 19)
EQ +/– 14 (17)
GAME 10 (18 – 20)
GROOVE 13 (17)
ON/OFF 16 (17)
PLAY MODE 21 (10, 11)
PRESET +/– 5 (13)
REPEAT 8 (11)
SLEEP 1 (18)
STEREO/MONO 8 (13)
SURROUND 11 (17)
TAPE A/B 9 (14, 15)
TUNER MEMORY 17 (12, 13)
TUNER/BAND 18 (12, 13)
TUNING +/– 5 (12, 13)
VOL +/– 12

BUTTON DESCRIPTIONS

I/⏻ (power) 4
▶▶ (fast forward) 5
I◀◀ (go back) 5
▶▶I (go forward) 5
II (pause) 5
▶ (play) 5
◀◀ (rewind) 5
■ (stop) 5

Setting the time

1 **Press I/⏻ to turn on the system.**

2 **Press CLOCK/TIMER SET on the remote.**
Proceed to step 5 when “CLOCK” appears in the display.

3 **Press I◀◀ or ▶▶I repeatedly to select “SET CLOCK”.**

4 **Press ENTER on the remote.**

5 **Press I◀◀ or ▶▶I repeatedly to set the hour.**

6 **Press ENTER on the remote.**
The minute indication flashes.

7 **Press I◀◀ or ▶▶I repeatedly to set the minute.**

8 **Press ENTER on the remote.**

Tip
If you made a mistake or want to change the time, start over from step 2.

Note
The clock settings are canceled when you disconnect the power cord or if a power failure occurs.

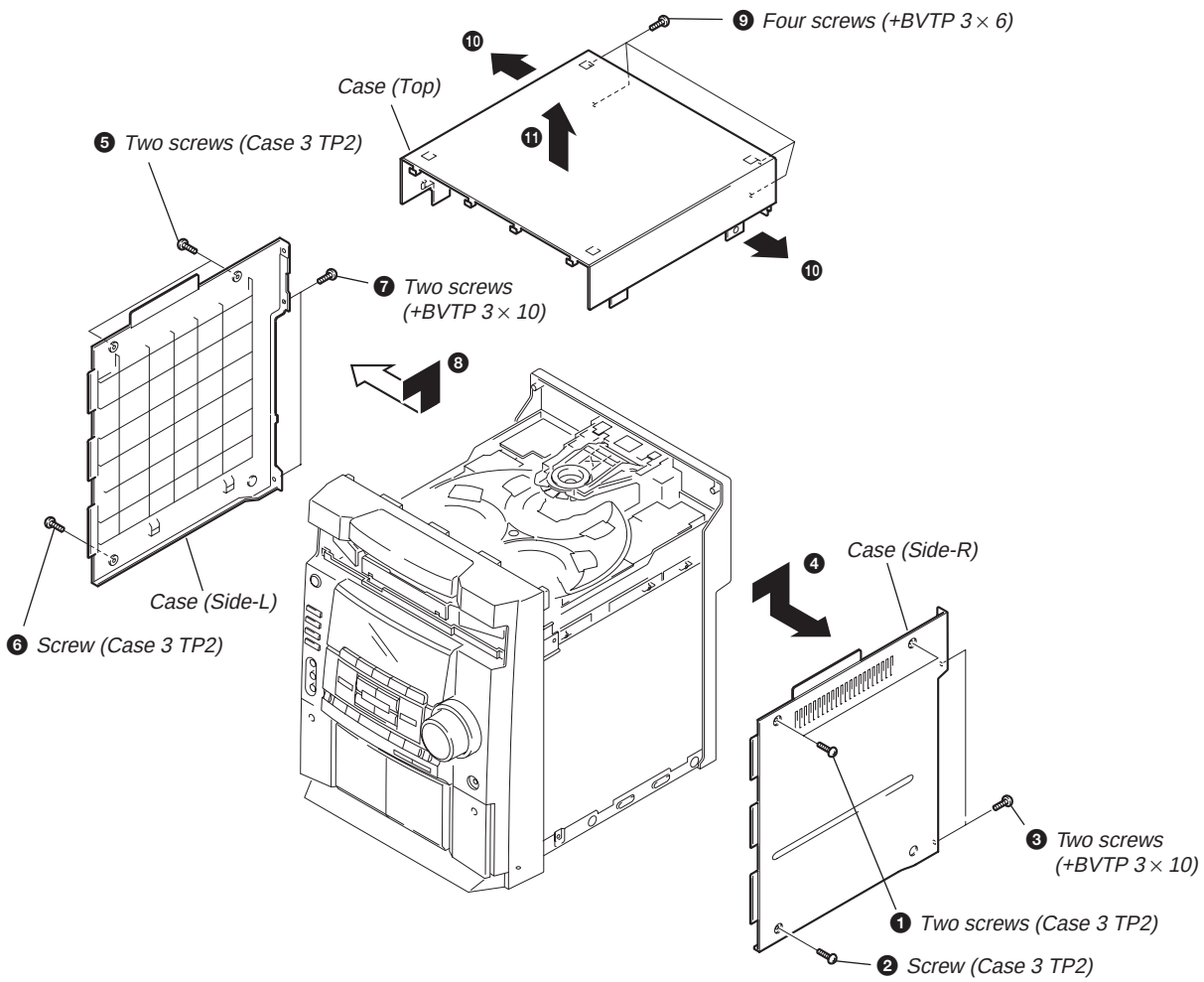
SECTION 2
DISASSEMBLY

Note : Disassemble the unit in the order as shown below.

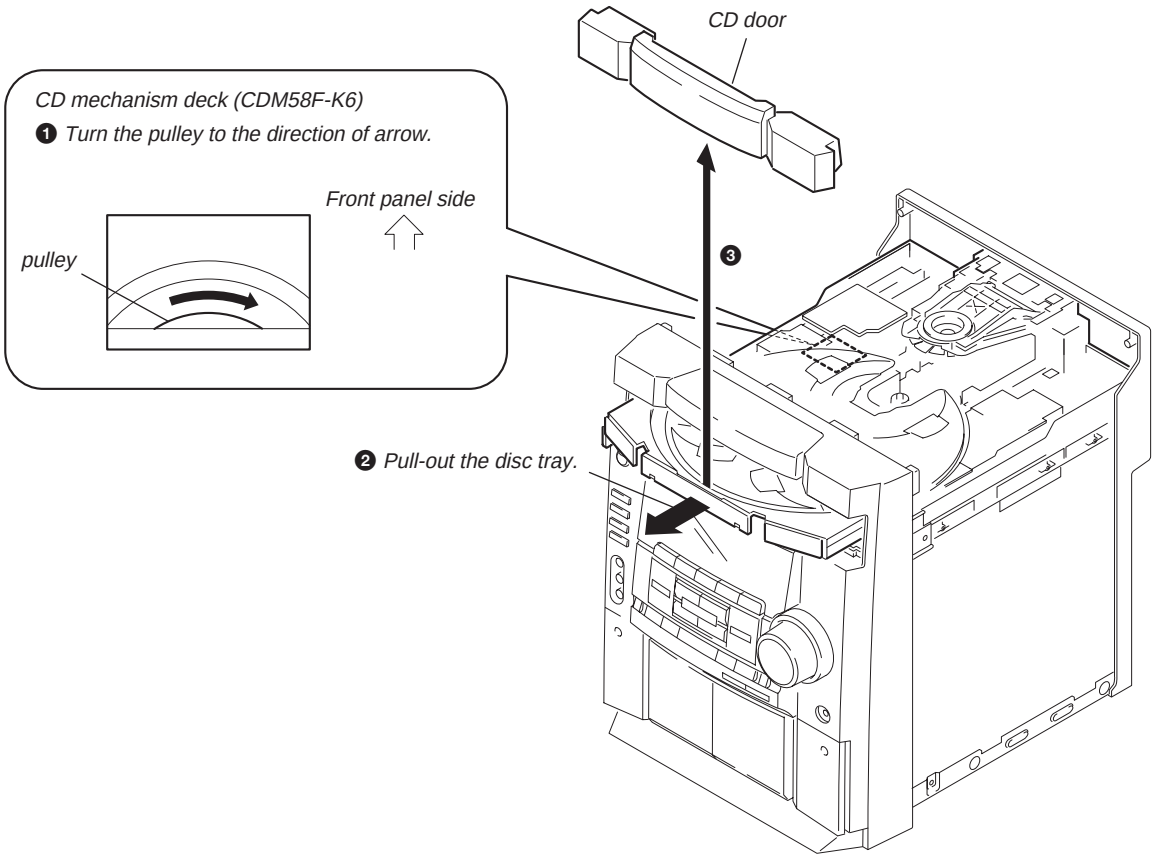
Set → *Case (Top)*
↓
CD door
↳ *Front panel section and CD mechanism deck (CDM58F-K6) section* → *Base unit* → *CD board, Driver board, Motor board and Address sensor board*
→ *Panel board*
→ *Tape mechanism deck and Panel board*
→ *CD board*
→ *Sub trans board, Video out board and Trans board*
↓
Main board and Power board

Note : Follow the disassembly procedure in the numerical order given.

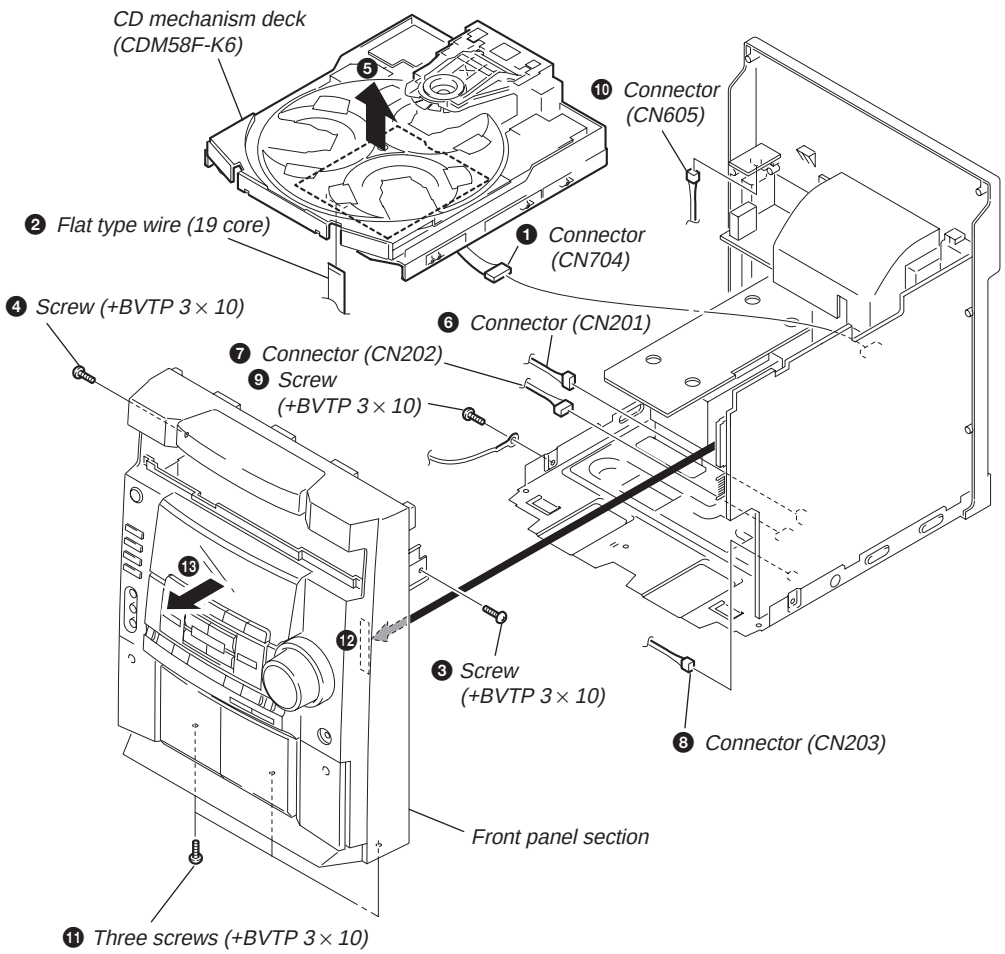
2-1. CASE (TOP)



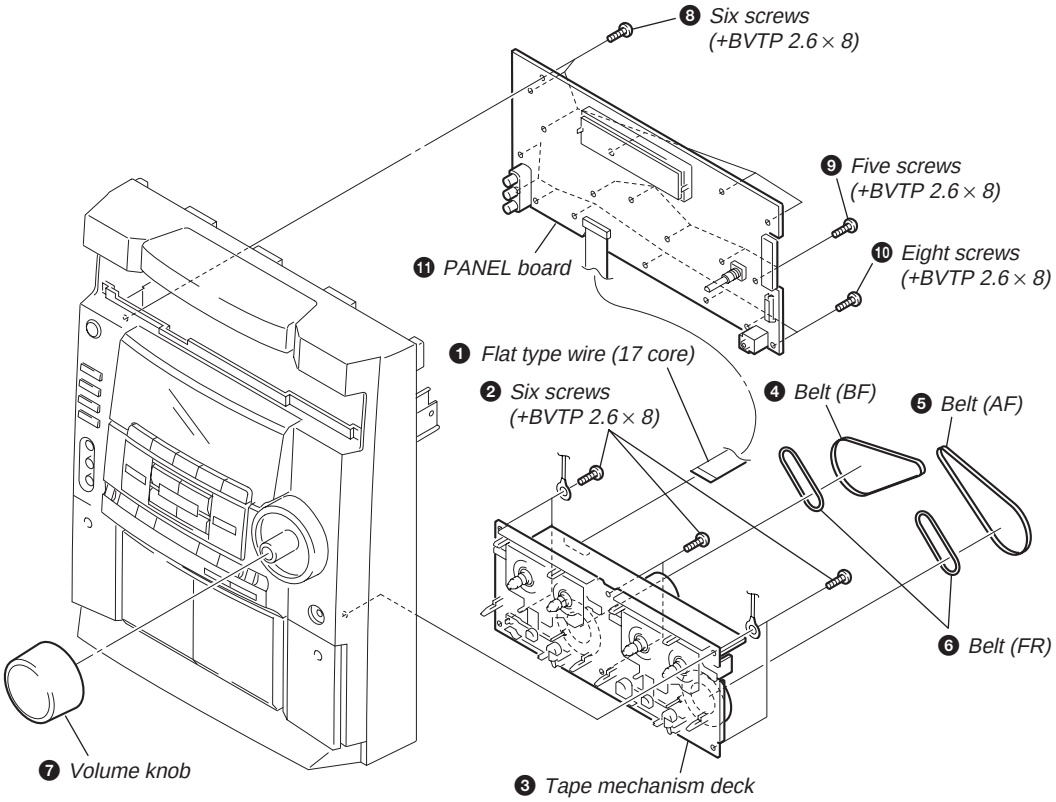
2-2. CD DOOR



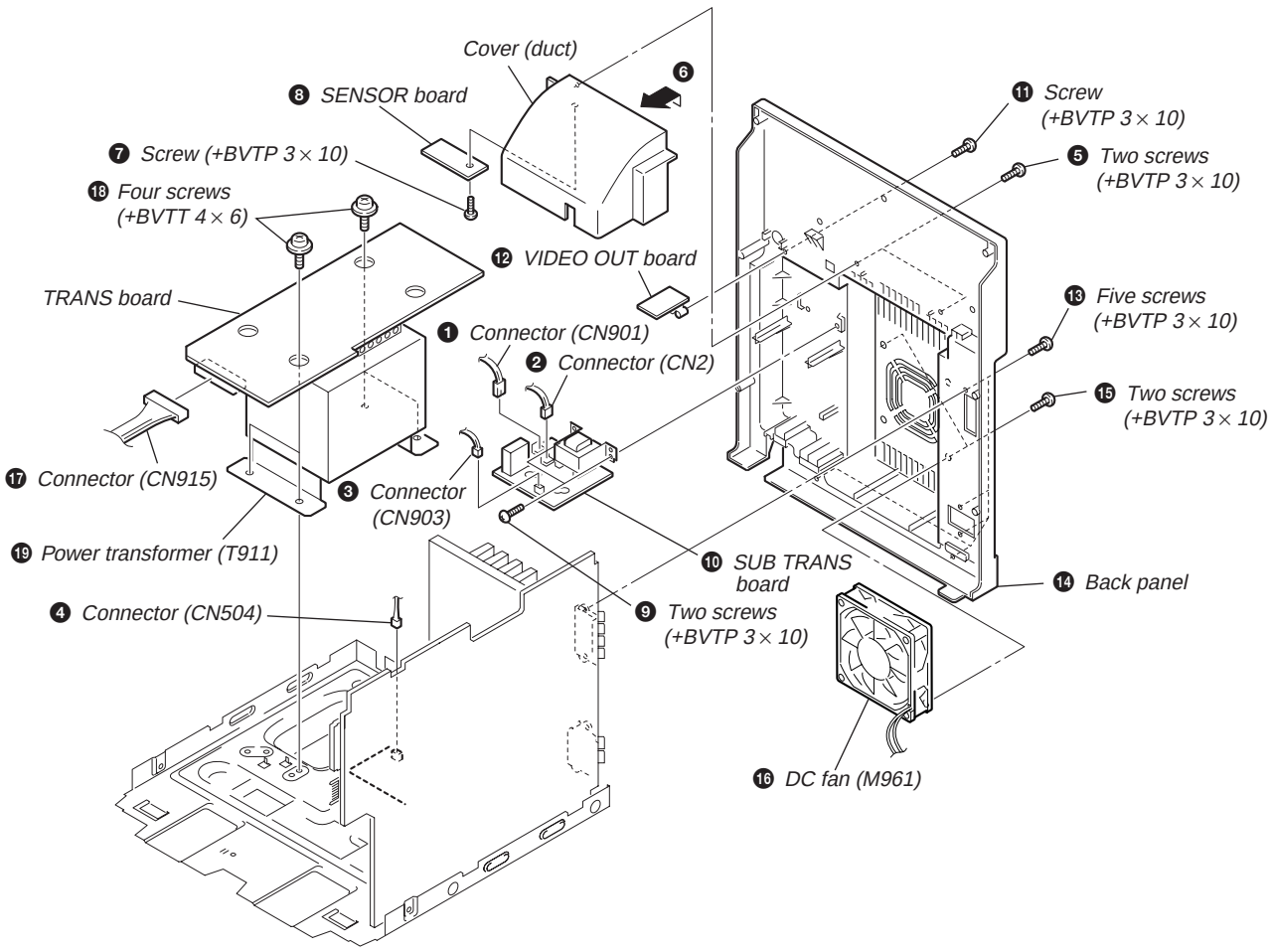
2-3. FRONT PANEL SECTION AND CD MECHANISM DECK (CDM58F-K6) SECTION



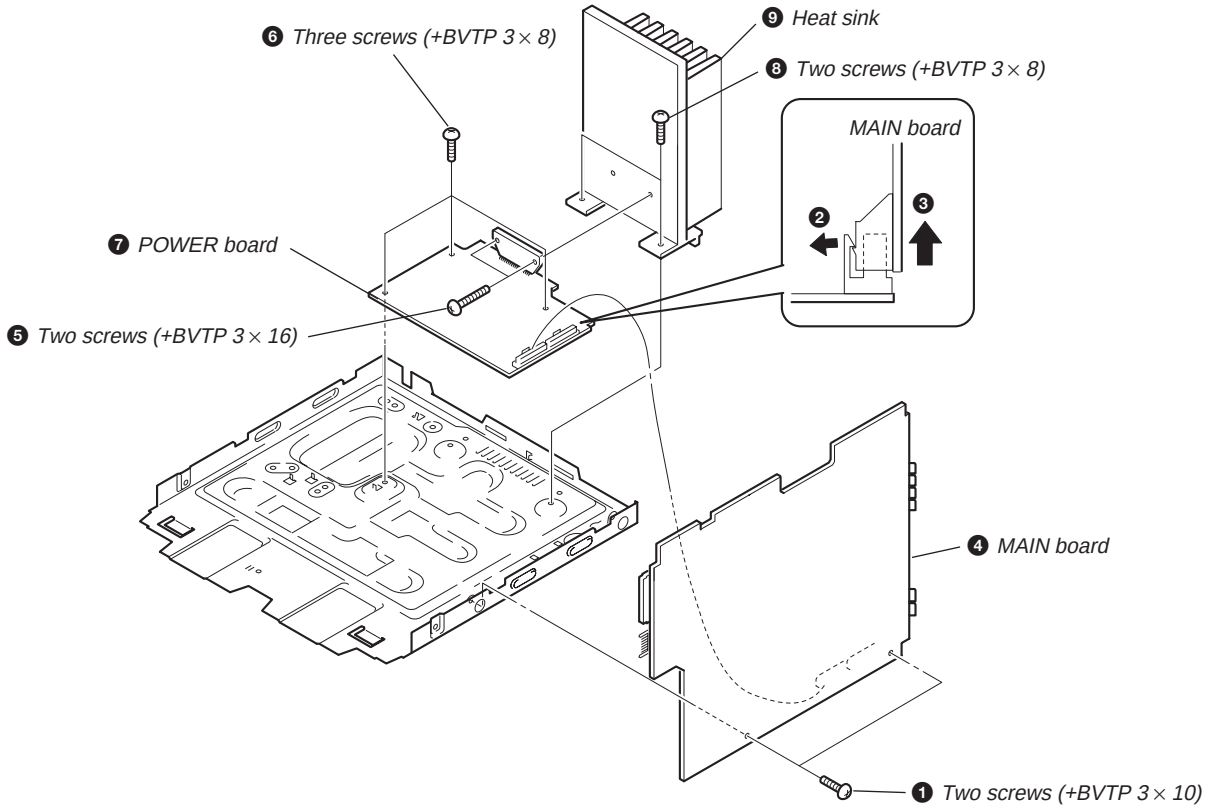
2-4. TAPE MECHANISM DECK AND PANEL BOARD


8 Six screws (+BVTP 2.6 × 8)
9 Five screws (+BVTP 2.6 × 8)
10 Eight screws (+BVTP 2.6 × 8)
11 PANEL board
1 Flat type wire (17 core)
2 Six screws (+BVTP 2.6 × 8)
4 Belt (BF)
5 Belt (AF)
6 Belt (FR)
7 Volume knob
3 Tape mechanism deck

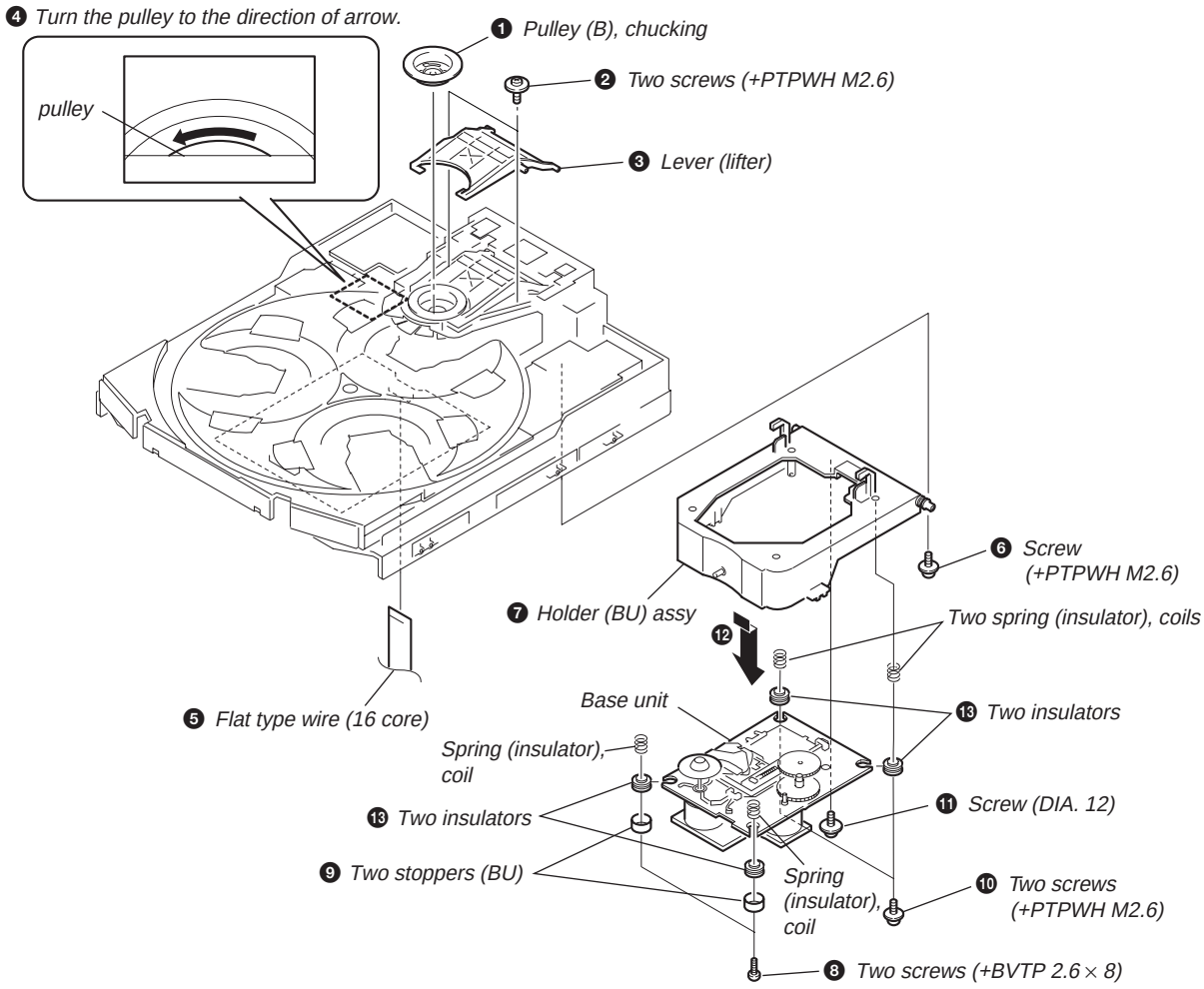
2-5. SUB TRANS BOARD, VIDEO OUT BOARD AND TRANS BOARD


Cover (duct)
6
8 SENSOR board
7 Screw (+BVTP 3 × 10)
18 Four screws (+BVTT 4 × 6)
12 VIDEO OUT board
TRANS board
1 Connector (CN901)
2 Connector (CN2)
17 Connector (CN915)
3 Connector (CN903)
19 Power transformer (T911)
4 Connector (CN504)
10 SUB TRANS board
9 Two screws (+BVTP 3 × 10)
11 Screw (+BVTP 3 × 10)
5 Two screws (+BVTP 3 × 10)
13 Five screws (+BVTP 3 × 10)
15 Two screws (+BVTP 3 × 10)
14 Back panel
16 DC fan (M961)

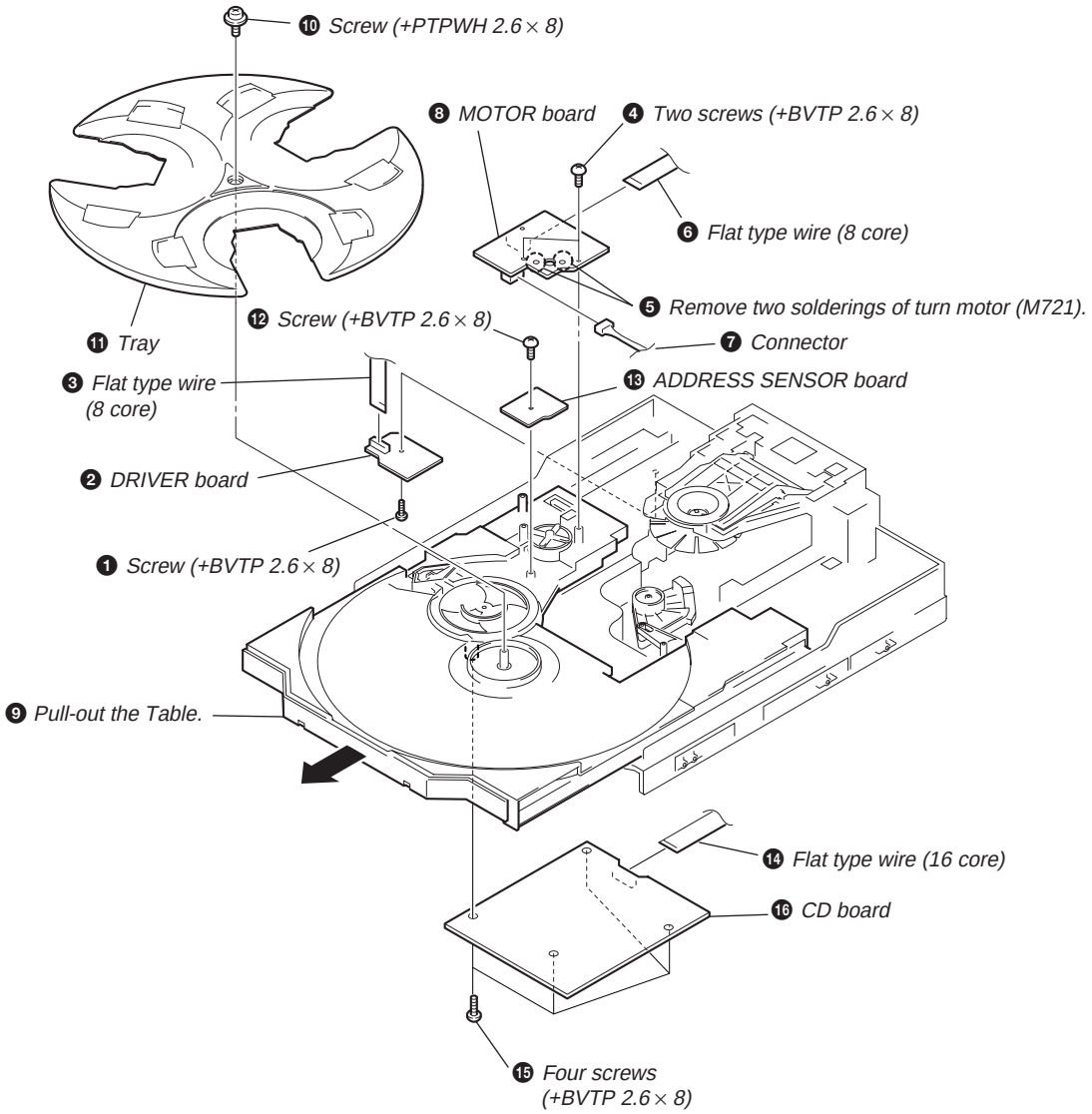
2-6. MAIN BOARD AND POWER BOARD



2-7. BASE UNIT



2-8. CD BOARD, DRIVER BOARD, MOTOR BOARD AND ADDRESS SENSOR BOARD


⑩ Screw (+PTPWH 2.6 × 8)
⑧ MOTOR board
④ Two screws (+BVTP 2.6 × 8)
⑥ Flat type wire (8 core)
⑤ Remove two solderings of turn motor (M721).
⑫ Screw (+BVTP 2.6 × 8)
⑦ Connector
⑪ Tray
③ Flat type wire (8 core)
⑬ ADDRESS SENSOR board
② DRIVER board
① Screw (+BVTP 2.6 × 8)
⑨ Pull-out the Table.
⑭ Flat type wire (16 core)
⑯ CD board
⑮ Four screws (+BVTP 2.6 × 8)

SECTION 3
TEST MODE

[Change-over of AM Tuner Step between 9 kHz and 10 kHz]

- A step of AM channels can be changed over between 9 kHz and 10 kHz.

Procedure:

1. Press I/⏻ button to turn the set ON.
2. Select the function "TUNER", and press TUNER/BAND button to select the BAND "AM".
3. Press I/⏻ button to turn the set OFF.
4. Press TUNER/BAND and I/⏻ buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9 k STEP" or "AM 10 k STEP", and thus the channel step is changed over.

[Cold Reset]

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press three buttons ■, DISPLAY, and I/⏻ simultaneously.
2. The fluorescent indicator tube displays "COLD RESET" and the set is reset.

[Aging Mode]

This mode can be used for operation check of CD section and tape deck section.

- If an error occurred:
  The aging operation stops and is displayed status.
- If no error occurs:
  The aging operation continues repeatedly.

1. Operating method of Aging Mode

Turn on the main power and select "CD" of the function.

1) Set three discs in tray. Select ALL DISCS, and REPEAT OFF.
2) Load the tapes recording use into both decks.
3) Press three buttons ■, DISPLAY, and DISC SKIP EX-CHANGE simultaneously.
4) Aging operations of CD and tape are started at the same time.
5) To exit the aging mode, perform [Cold Reset].

2. Aging mode in CD section

1) Operation during aging mode

- In the agining mode ,the program is excuted in the following sequence.

(1) The disc tray opens and closes.
(2) The disc tray turns to select a disc 3.
(3) The pickup accesses to the first track, and plays 3 seconds.
(4) The pickup accesses to the last track, and plays 3 seconds.
(5) The disc tray opens and closes.
(6) The disc tray turns to select a disc 1.
(7) The same operation starts like step (3).
(8) After a disc 1 aging operation, a disc 2 is selected.
(9) When an aging operation of a disc 3 is completed, the display "AGING ****" value increases.
(10) If no error occurs, the aging operation continues repeatedly.

2) Error display

Disc error	
Display	Error
E00D01022	Focus error (No disc)
E00D02022	Sub Q error (Focus is good)
E00D02023	TOC reading error
E00D02014	Access error (Unable within regular time)

Mechanism error	
Display	Error
E00M__E_0	Error during opening tray
E00M__C_2	EX-CHANGE disc error
E00M__D_0	Error during closing tray
E00M__F_3	EX-OPEN error
E00M__D_5	EX-CLOSE error
E00M__C_2	Chuck-up error
E00M__C_3	Unchucking error

3. Aging mode in Tape Deck section

1) Operation during aging mode

- In the agining mode, the program is excuted in the following sequence.

Step	Operation	Display
1	Rewind the TAPE A	TAPE AAG-1
2	Rewind the TAPE B	TAPE BAG-2
3	Play the TAPE A (1 minute)	TAPE AAG-2
4	Stop the TAPE A (1 second)	TAPE AAG-3
5	Play the TAPE A (3 minutes)	TAPE AAG-4
6	Rewind(AMS) the TAPE A	TAPE AAG-5
7	F.F.(AMS) the TAPE A	TAPE AAG-6
8	Play the TAPE B (1 minute)	TAPE BAG-2
9	Stop the TAPE B (1 second)	TAPE BAG-3
10	Record the TAPE B (3 minutes)	TAPE BAG-4
11	Rewind(AMS) the TAPE B	TAPE BAG-5
12	F.F.(AMS) the TAPE B	TAPE BAG-6

2) Error display

- If error occurred, the display remains like "TAPE BAG-2".

4. Exiting from the aging mode

- Be sure to perform Cold Reset to exit from the aging mode.

[FL Tube Test Mode]

• All fluorecent segments and LEDs are tested.

Procedure:

1. Press I/⏻ button to turn the set ON.
2. To enter the test mode, press the three buttons ■, DISPLAY and GROOVE simultaneously.
3. Press DISPLAY and DISC SKIP/EX-CHANGE buttons simultaneously.
4. All segments and LEDs (without STANDBY LED) are turned on.
5. To exit from this mode, press I/⏻ button to turn the set OFF.

[Version and Destination Display Mode]

• The version or destination is displayed.

Procedure:

1. Press I/⏻ button to turn the set ON.
2. To enter the test mode, press the three buttons ■, DISPLAY and GROOVE simultaneously.
3. Press DISPLAY and DISC 1 buttons simultaneously.
4. The version is displayed.
5. Press DISPLAY and DISC 2 buttons simultaneously.
6. The destination is displayed.
7. To exit from this mode, press I/⏻ button to turn the set OFF.

[Key Check Mode]

• Keyboard check.

Procedure:

1. Press I/⏻ button to turn the set ON.
2. To enter the test mode, press the three buttons ■, DISPLAY and GROOVE simultaneously.
3. Press DISPLAY and DISC 3 buttons simultaneously, and the key check mode is activated.
4. In the key check mode, the fluorecent indicator displays “KEY 0 VOL 0”. Each time a button is pressed, “KEY 0” value increases. However, once a button is pressed, it is no longer taken into account.
   “VOL 0” value increases like 1, 2, 3 ... if rotating VOLUME knob clockwise, or it decreases like 0, 9, 8, ... if rotating counter-clockwise.
5. To exit from this mode, press I/⏻ button to turn the set OFF.

[CD Service Mode]

• This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pickup.

Procedure:

1. Press I/⏻ button to turn the set ON.
2. Select the function “CD”.
3. To enter the test mode, press three buttons ■, DISPLAY, and GROOVE simultaneously.
4. Press DISPLAY and OPEN/CLOSE buttons simultaneously.
5. The CD service mode is selected.
6. With the CD in stop status, press ▶▶ + button to move the pickup to outside track, or press ◀◀ – button to inside track.
7. To exit from this mode, perform as follows:
   1) Move the pickup to the most inside track.
   2) Press I/⏻ button to turn the set OFF.

Note: • Always move the pickup to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
• Do not run the sled motor excessively, otherwise the gear can be chipped.

[VACS ON/OFF Mode]

• This mode is used to switch ON and OFF the VACS (Variable Attenuation Control System).

Procedure:

1. Press I/⏻ button to turn the set ON.
2. To enter the test mode, press the three buttons ■, DISPLAY and GROOVE simultaneously.
3. Press CD SYNC button while pressing DISPLAY button. The message “VACS OFF” or “VACS ON” appears.
4. To exit from this mode, press I/⏻ button to turn the set OFF.

[Equalizer Test Mode]

• This mode is used to test the function of the equalizer.

Procedure:

1. Press I/⏻ button to turn the set ON.
2. To enter the test mode, press the three buttons ■, DISPLAY and GROOVE simultaneously.
3. Press ◀◀ – button while pressing DISPLAY button. The message “BASS + 0” is displayed.
4. The value increases like + 2, + 4 ... if pressing ▶▶| button while DISPLAY button is still depressed, or it decreases like - 2, - 4 ... if pressing |◀◀ button.
5. Press ▶▶ + button while pressing DISPLAY button. The message “TRE + 0” is displayed.
6. The value increases like + 2, + 4 ... if pressing ▶▶| button while DISPLAY button is still depressed, or it decreases like - 2, - 4 ... if pressing |◀◀ button.
7. To exit from this mode, press I/⏻ button to turn the set OFF.

[CD Ship Mode (No Memory Clear)]

• This mode moves the pickup to the position durable to vibration. Use this mode when returning the set to the customer after repair.

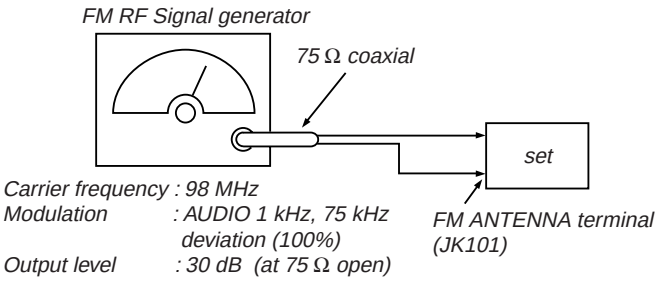
Procedure:

1. Press I/⏻ button to turn the set ON.
2. Press CD button and I/⏻ button simultaneously.
3. The "STANDBY" display blinks instantaneously, and the CD ship mode is set.

SECTION 4
ELECTRICAL ADJUSTMENTS

TUNER SECTION

FM Tuned Level Adjustment

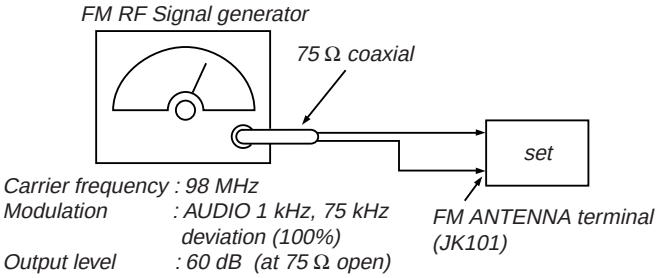

FM RF Signal generator
75 Ω coaxial
set
Carrier frequency : 98 MHz
Modulation : AUDIO 1 kHz, 75 kHz deviation (100%)
Output level : 30 dB (at 75 Ω open)
FM ANTENNA terminal (JK101)

Procedure:

1. Supply a 98 MHz signal at 28 dB from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. Adjust RV101 to the point (moment) when the TUNED indicator will change from going off to going on.

Adjustment Location: MAIN board

Null Adjustment

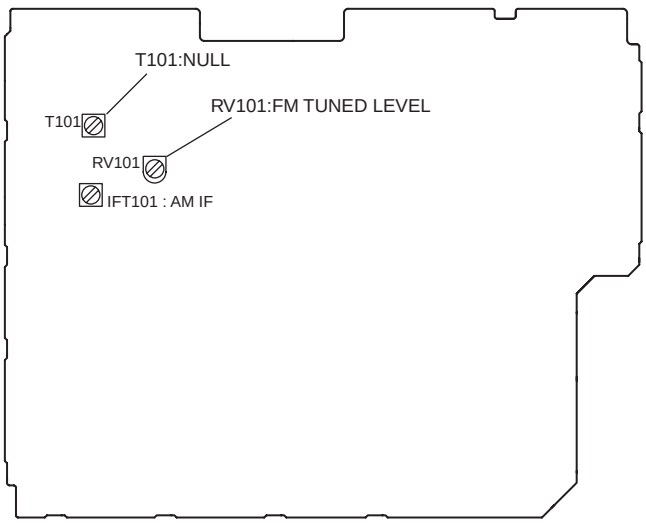

FM RF Signal generator
75 Ω coaxial
set
Carrier frequency : 98 MHz
Modulation : AUDIO 1 kHz, 75 kHz deviation (100%)
Output level : 60 dB (at 75 Ω open)
FM ANTENNA terminal (JK101)

Procedure:

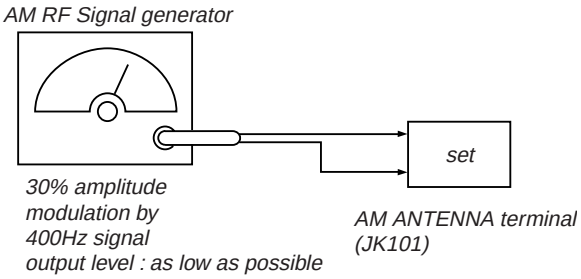
1. Supply a 98 MHz signal at 60 dB from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. Measure voltage between pin 21 and pin 23 of IC 101. Adjust T101 until the voltage becomes 0 V.

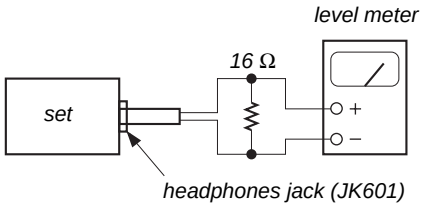
Adjustment Location: MAIN board

[MAIN BOARD] Component side



AM IF Adjustment


AM RF Signal generator
set
30% amplitude modulation by 400Hz signal
output level : as low as possible
AM ANTENNA terminal (JK101)



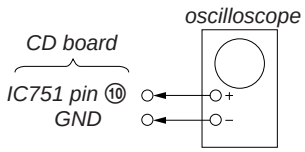
Procedure:

1. Set the frequency of the AM RF signal generator to 1000 kHz (at 10 kHz step) or 999 kHz (at 9 kHz step).
2. Tune the set to AM 1000 kHz (at 10 kHz step) or 999 kHz (at 9 kHz step).
3. Adjust IFT101 so that the reading on level meter becomes in maximum.

CD SECTION

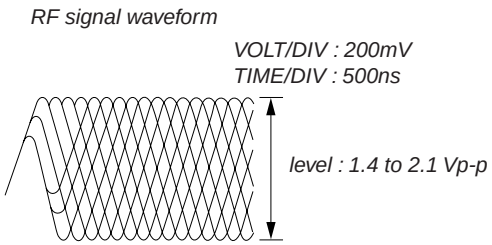
Note :
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

RF Level Check



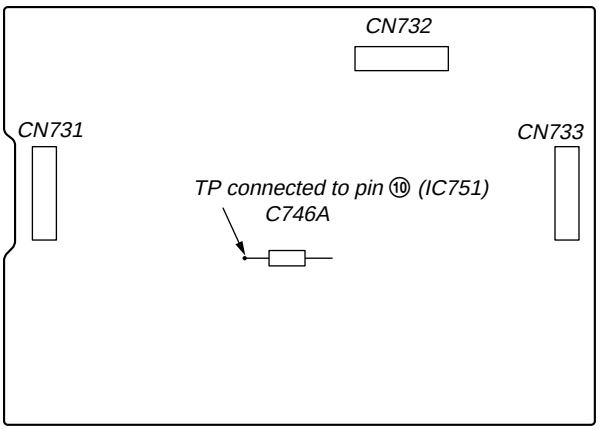
Procedure :
1. Connect oscilloscope to pin ⑩ (IC751).
2. Turned Power switch on.
3. Load a disc (YEDS-18) and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note : Clear RF signal waveform means that the shape " ◊ " can be clearly distinguished at the center of the waveform.



Adjustment Location: CD board

[CD BOARD] (Component Side)



SECTION 5
DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

Note on Schematic Diagram:

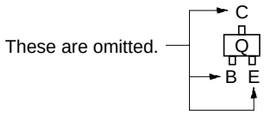
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

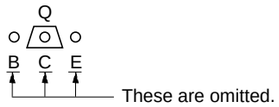
Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- ▬▬ : B+ Line.
- ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
  no mark : FM
  < > : CD
  [ ] : TAPE
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ⇨ : PB (DECK A)
  ⇨ : PB (DECK B)
  ⇨ : REC (DECK B)
  ⇨ : CD

Note on Printed Wiring Boards:

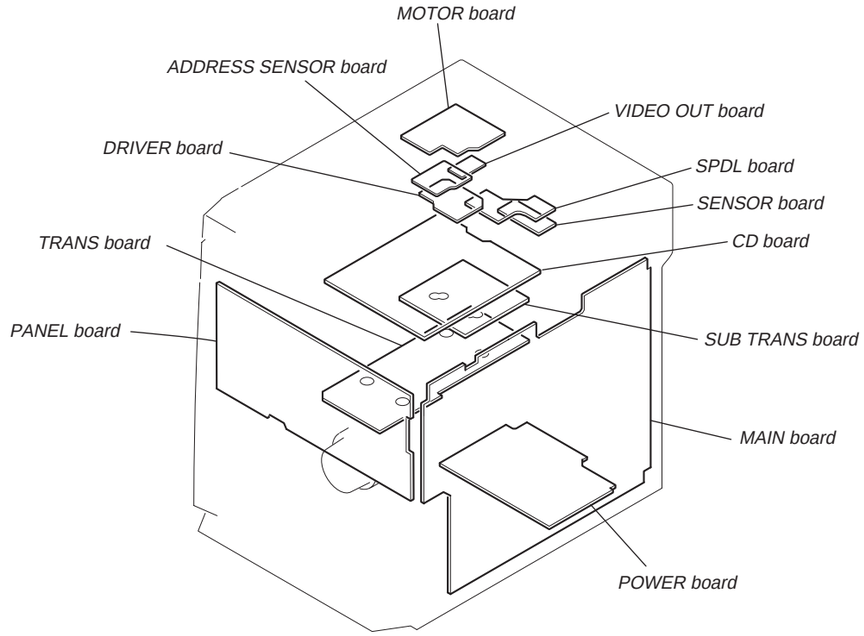
- ○——— : parts extracted from the component side.
- ▒▒▒ : Pattern from the side which enables seeing.
- Indication of transistor.





- Abbreviation
  CND : Canadian model
  AUS : Australian model
  AR : Argentina model
  SP : Singapore model
  TW : Taiwan model
  MX : Mexican model
  MY : Malaysia model
  E2 : 120V AC Area in E model
  E3 : 240V AC Area in E model
  E51 : Chilean and Peruvian model

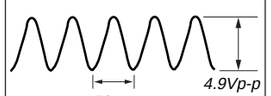
5-1. CIRCUIT BOARD LOCATION



• WAVEFORMS

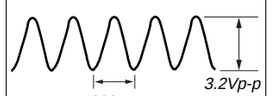
– CD BOARD –

1 IC751 ㊹ (XOUT)

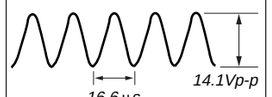


– MAIN BOARD –

2 IC102 ㉔ (XOUT)

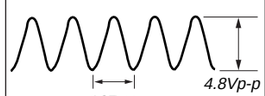


3 L251

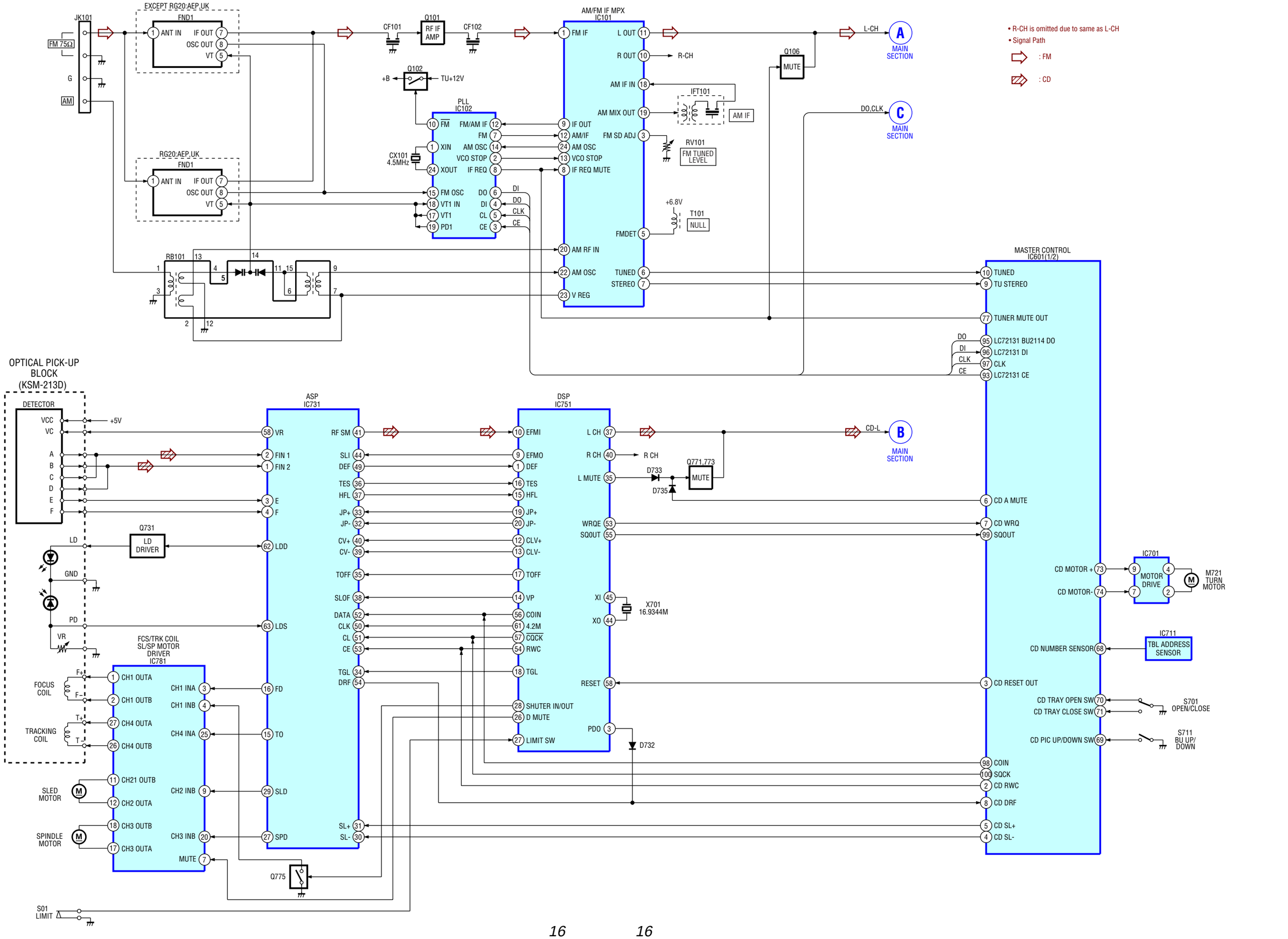


– PANEL BOARD –

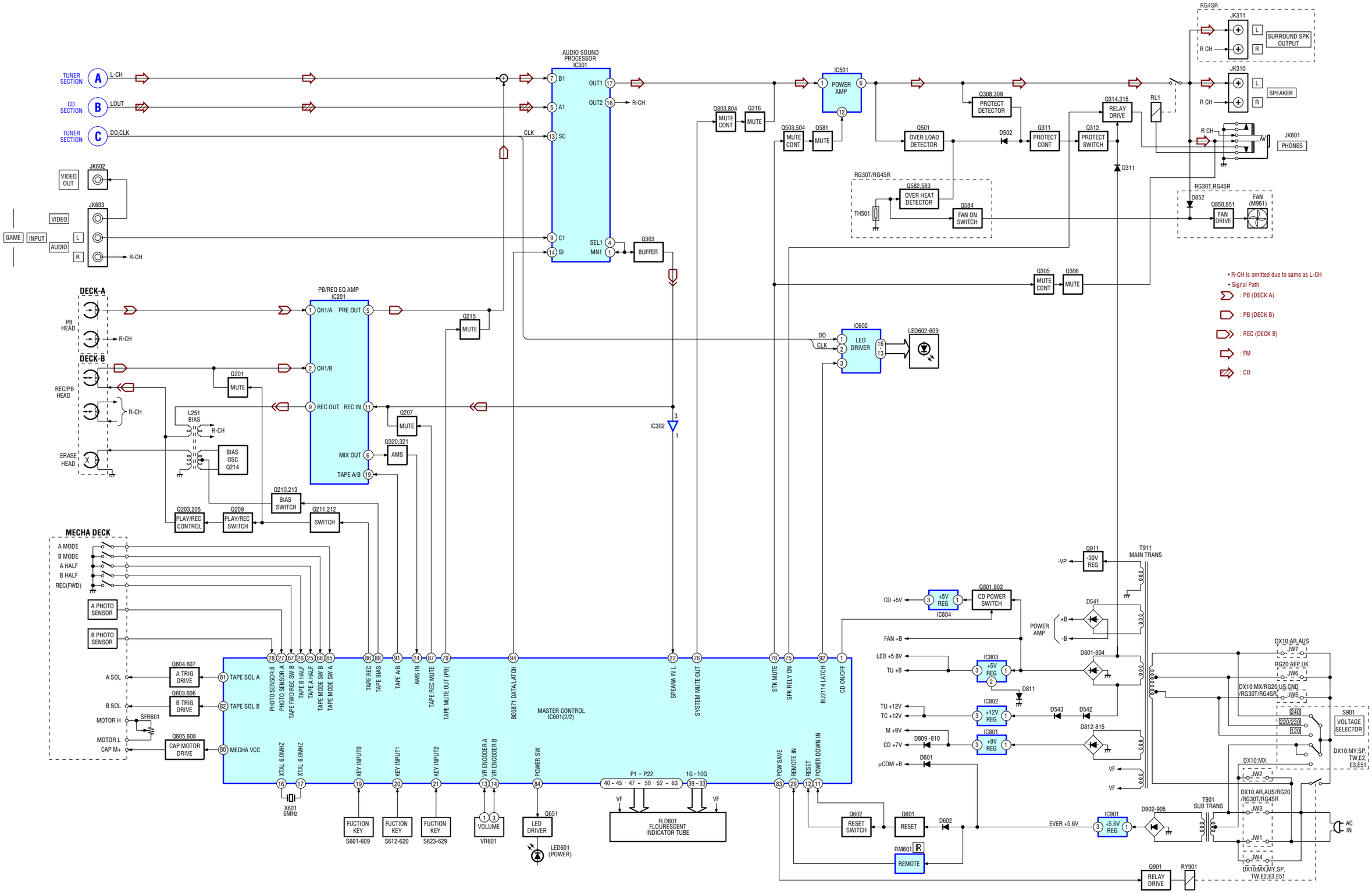
4 IC601 ⑰ (XTAL 6.0MHz)



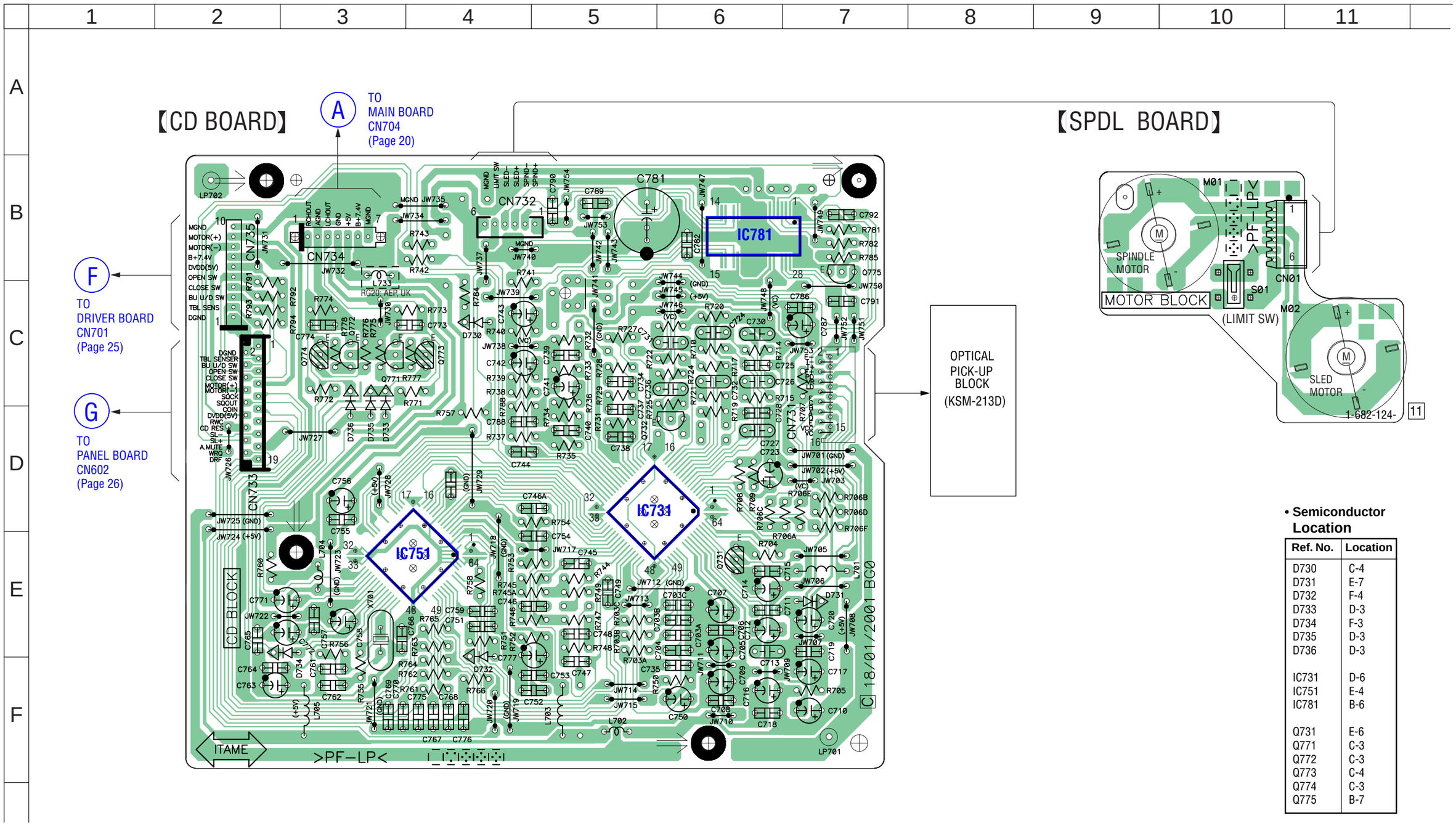
5-2. BLOCK DIAGRAMS
TUNER/CD SECTION



MAIN SECTION



5-3. PRINTED WIRING BOARD CD SECTION • See page 15 for Circuit Boards Location.

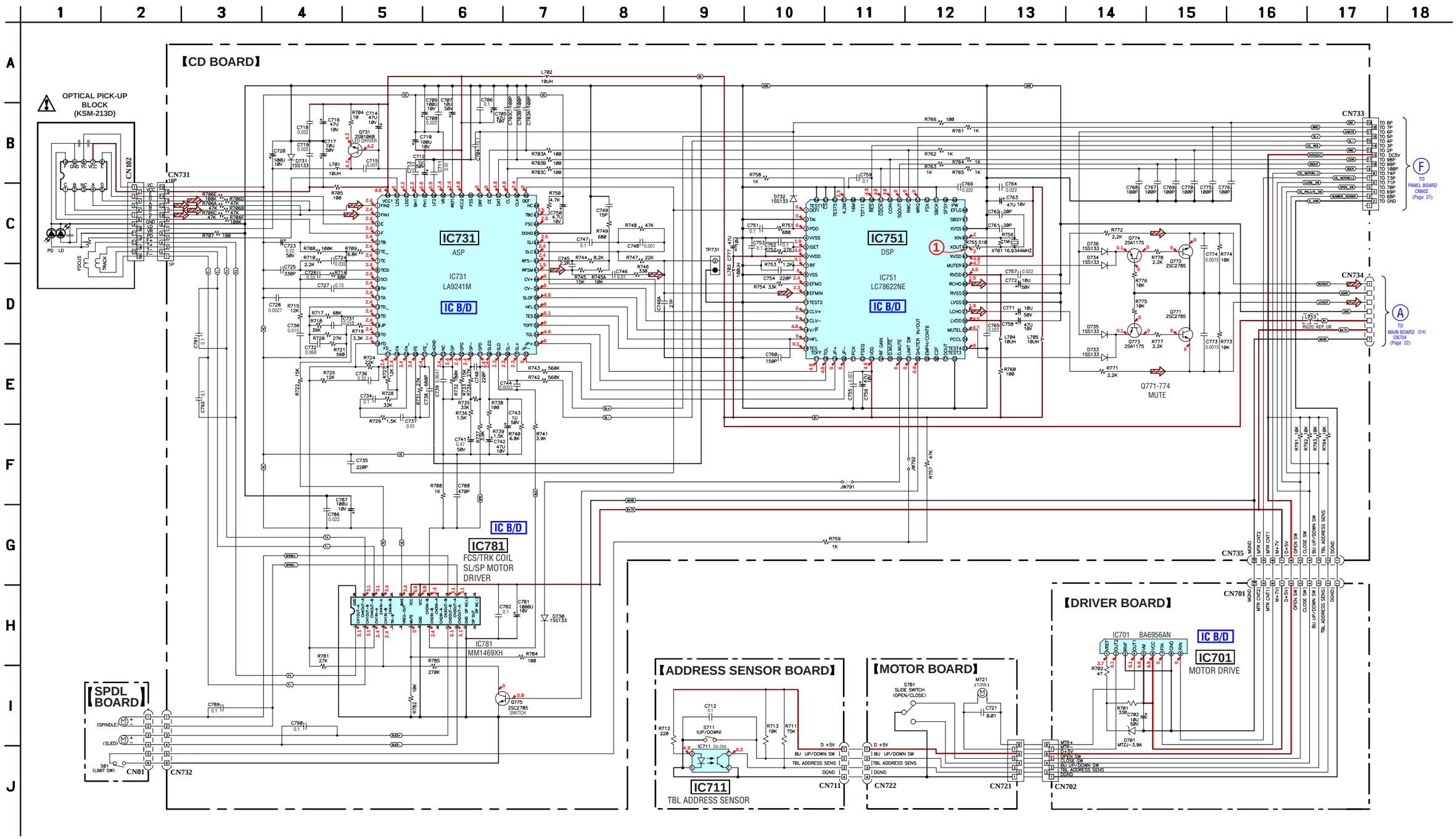


- **Semiconductor Location**

Ref. No.	Location
D730	C-4
D731	E-7
D732	F-4
D733	D-3
D734	F-3
D735	D-3
D736	D-3
IC731	D-6
IC751	E-4
IC781	B-6
Q731	E-6
Q771	C-3
Q772	C-3
Q773	C-4
Q774	C-3
Q775	B-7

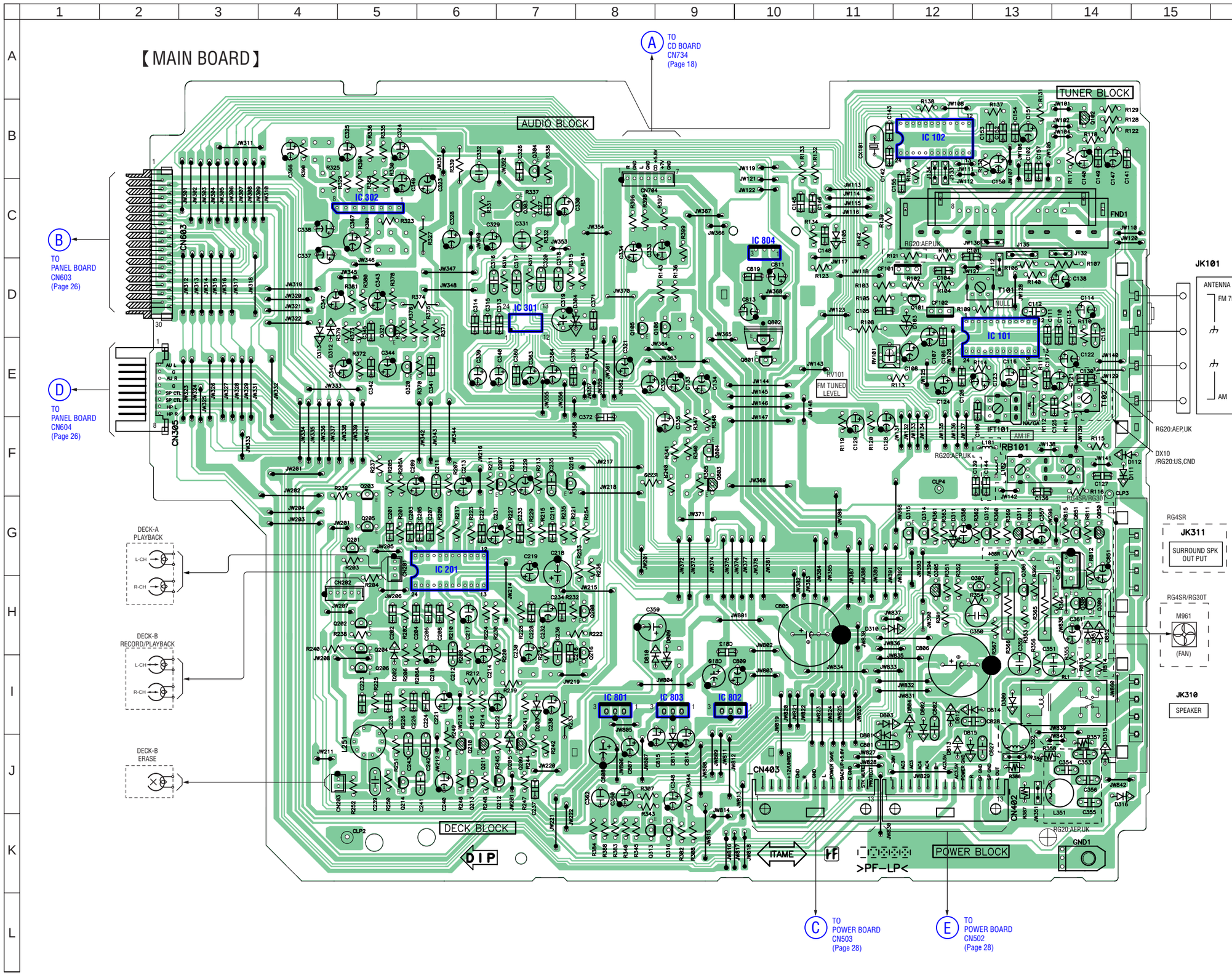
5-4. SCHEMATIC DIAGRAM CD SECTION

• See page 15 for Waveform. • See page 31, 32 for IC Block Diagrams. • See page 25 for printed wiring boards of ADDRESS SENSOR, DRIVER and MOTOR boards.



5-5. PRINTED WIRING BOARD MAIN SECTION

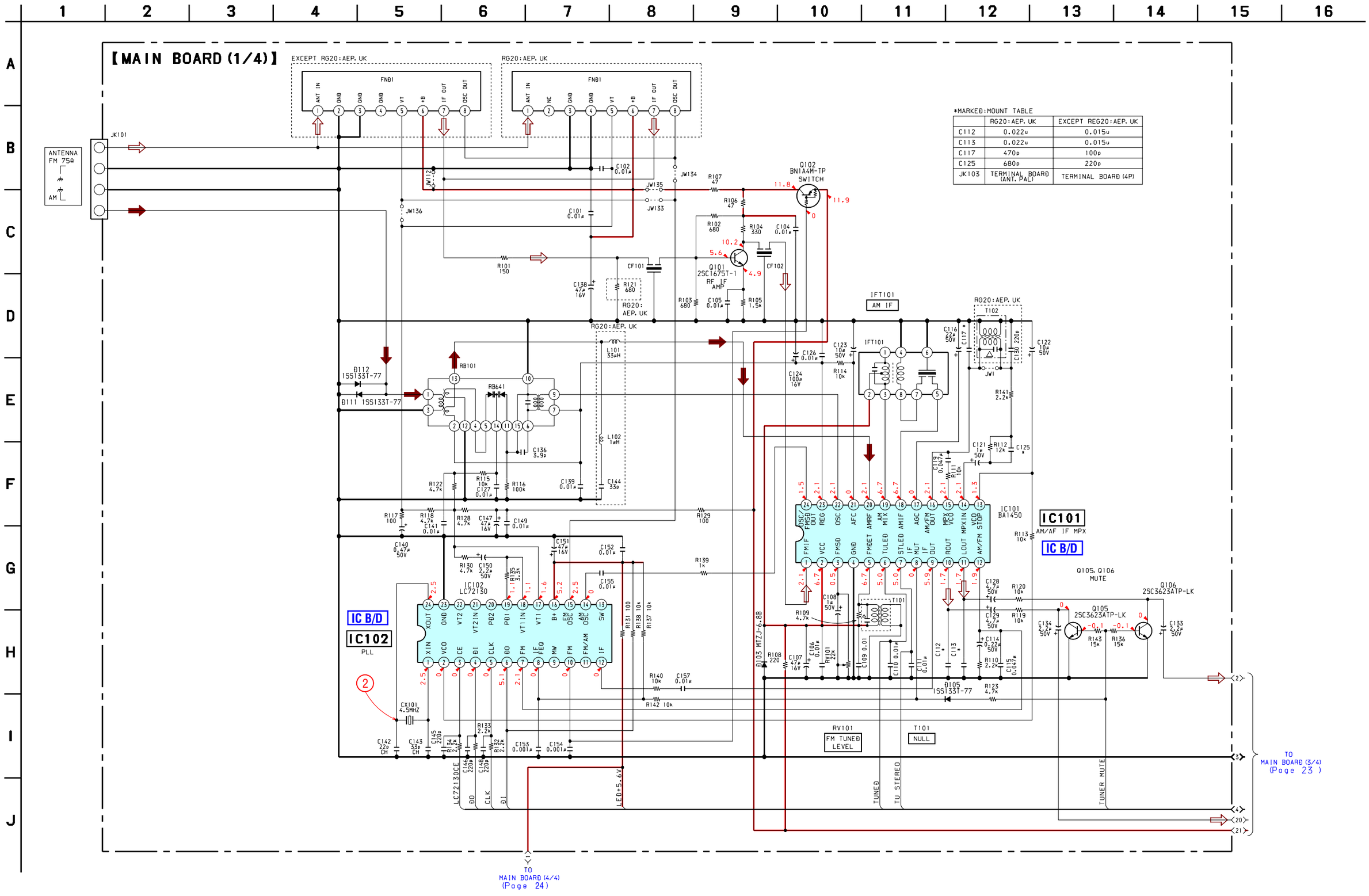
• See page 15 for Circuit Boards Location.



• **Semiconductor Location**

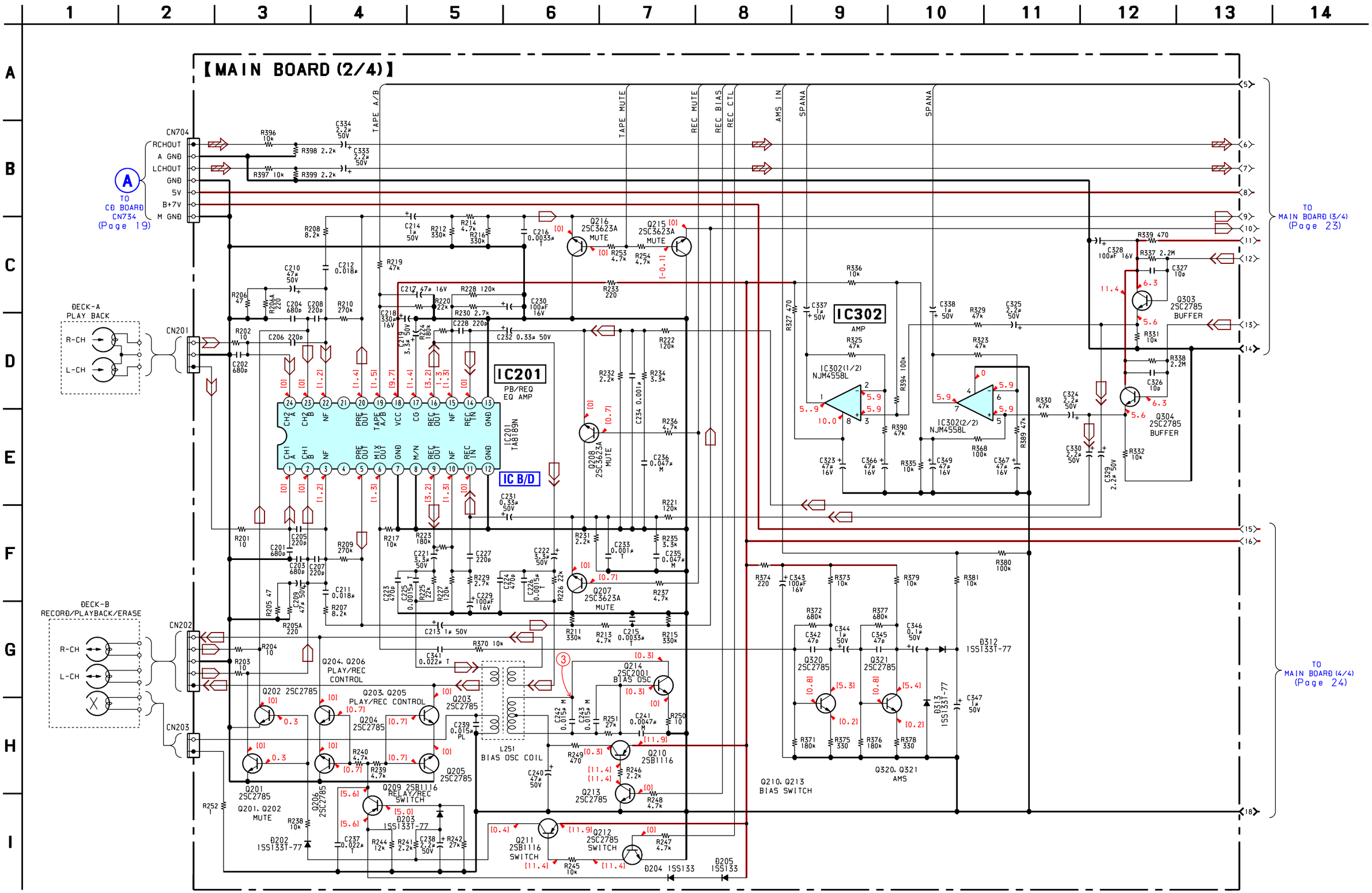
Ref. No.	Location	Ref. No.	Location
D103	D-12	Q105	D-8
D105	C-11	Q106	D-9
D111	F-14	Q201	G-5
D112	F-14	Q202	H-5
D202	H-5	Q203	F-5
D203	I-7	Q204	H-5
D204	J-7	Q205	G-5
D205	J-7	Q206	I-5
D304	D-7	Q207	F-6
D309	I-13	Q208	H-8
D310	H-11	Q209	I-7
D311	G-12	Q210	I-6
D312	D-4	Q211	I-6
D313	D-4	Q212	J-6
D315	I-14	Q213	J-6
D316	J-14	Q214	J-5
D801	I-11	Q215	F-7
D802	I-12	Q216	H-8
D803	I-11	Q303	C-7
D804	I-12	Q304	B-7
D809	H-9	Q305	G-12
D810	H-9	Q306	H-13
D811	I-9	Q307	G-12
D812	I-12	Q308	G-14
D813	I-12	Q309	G-14
D814	I-12	Q311	G-13
D815	I-12	Q312	G-13
D851	H-14	Q313	K-8
D852	H-14	Q314	G-12
		Q315	G-12
IC101	D-13	Q316	K-9
IC102	B-12	Q320	E-5
IC201	G-6	Q321	D-5
IC301	D-7	Q801	D-10
IC302	C-5	Q802	D-10
IC801	I-8	Q803	F-9
IC802	I-10	Q804	F-9
IC803	I-9	Q850	G-14
IC804	C-10	Q851	G-14
Q101	D-12		
Q102	B-14		

5-6. SCHEMATIC DIAGRAM MAIN SECTION (1/4) • See page 15 for Waveform. • See page 32, 33 for IC Block Diagrams.



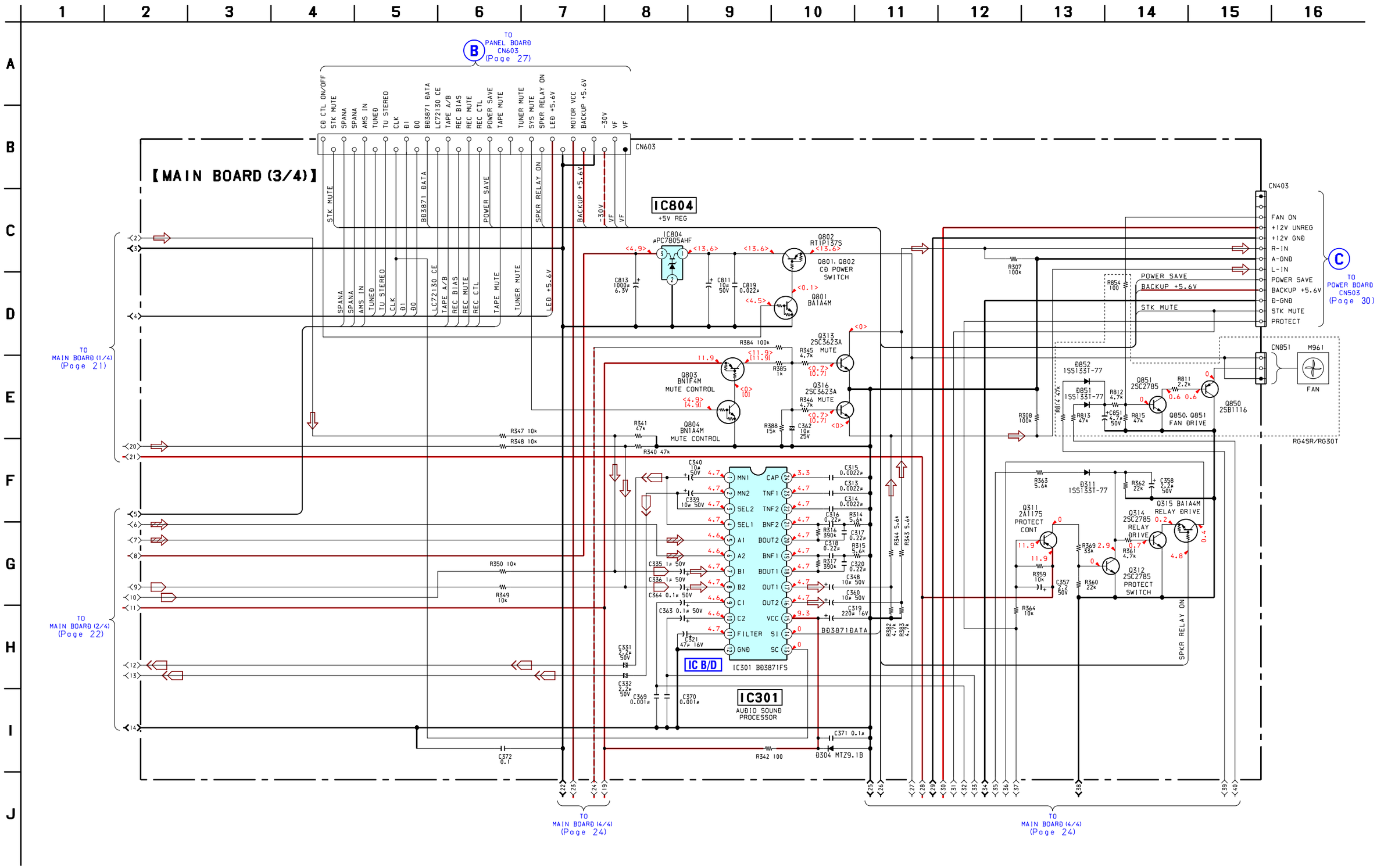
5-7. SCHEMATIC DIAGRAM MAIN SECTION (2/4)

• See page 15 for Waveform. • See page 33 for IC Block Diagram.

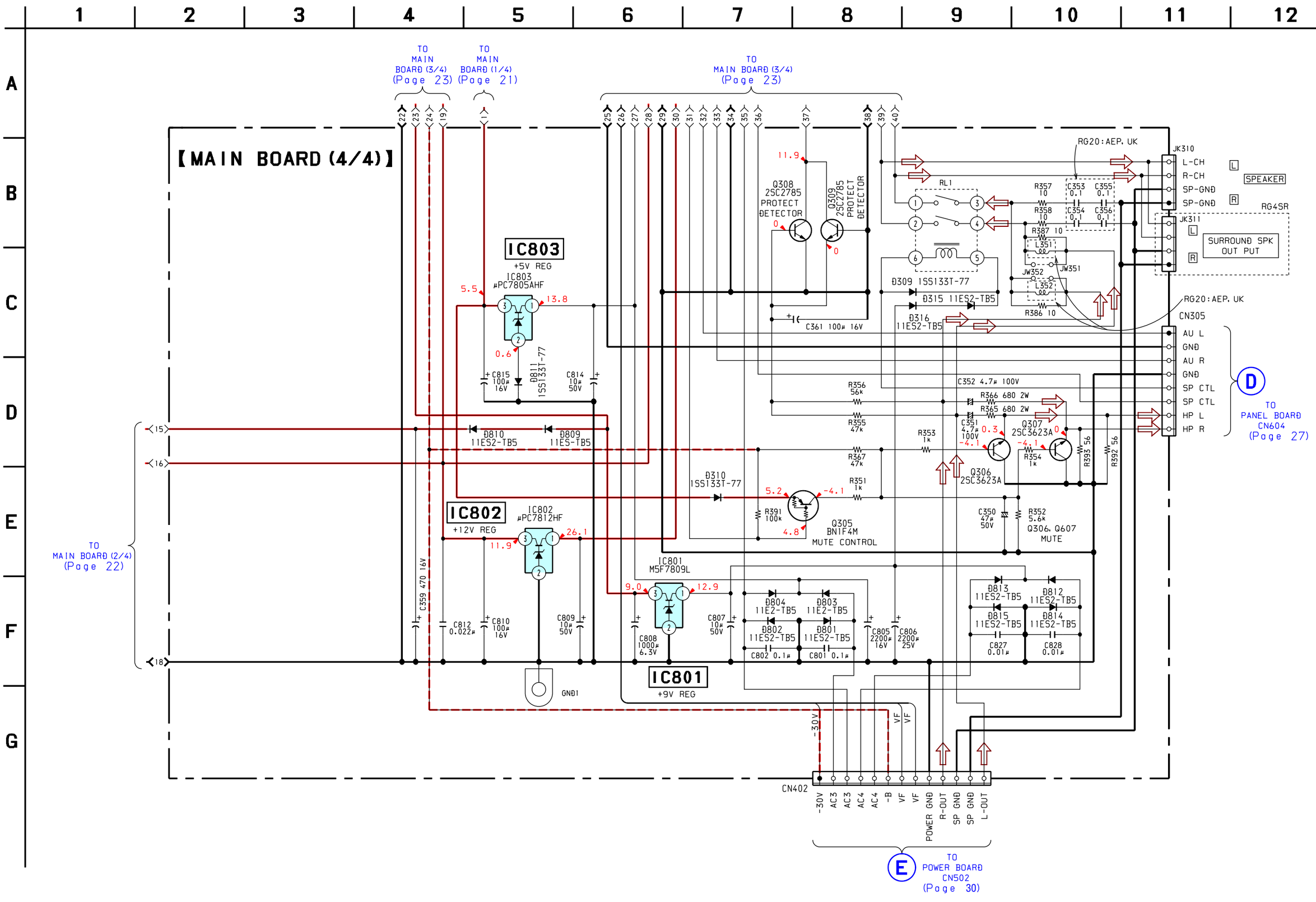


5-8. SCHEMATIC DIAGRAM MAIN SECTION (3/4)

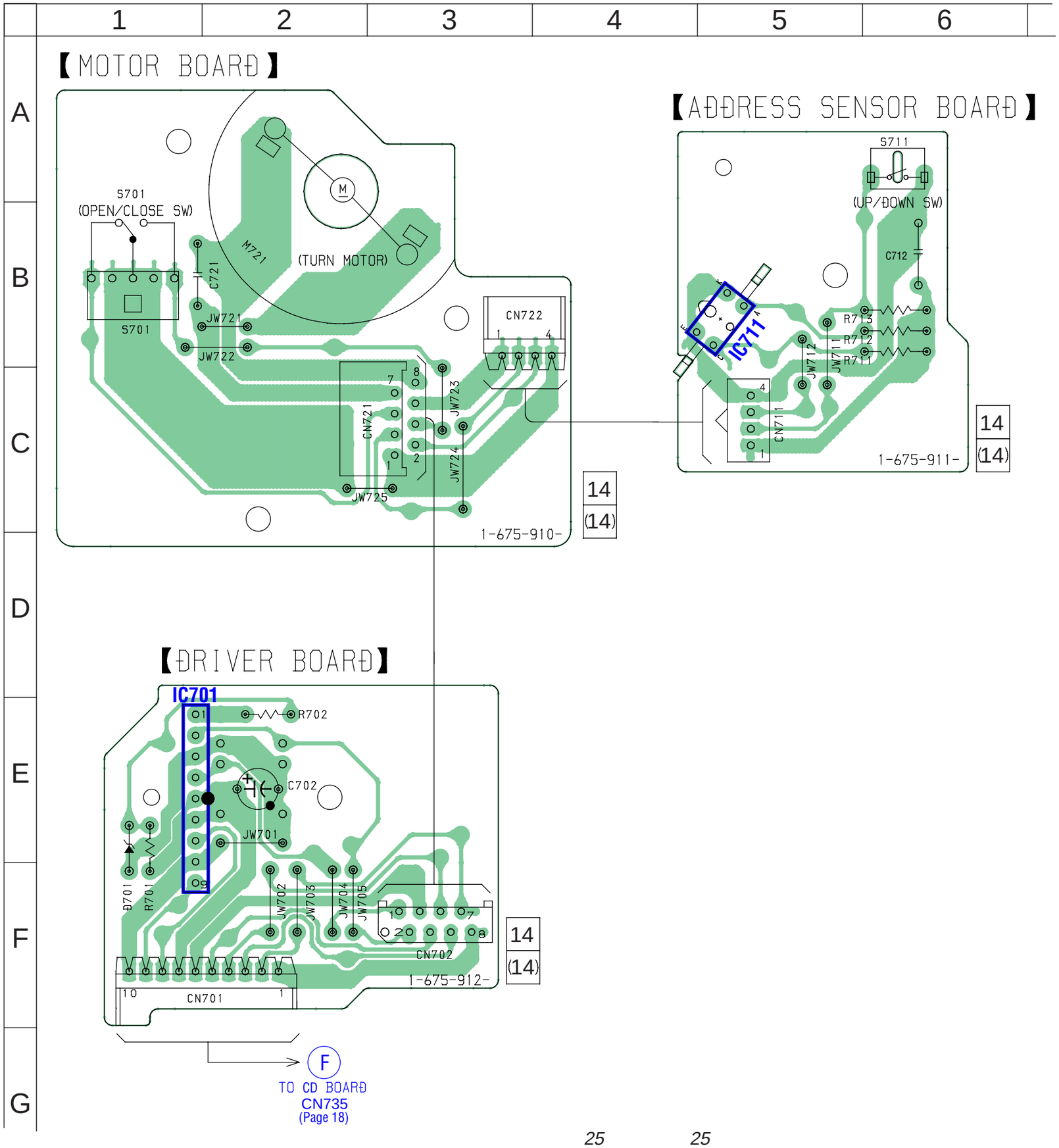
• See page 33 for IC Block Diagram.



5-9. SCHEMATIC DIAGRAM MAIN SECTION (4/4)

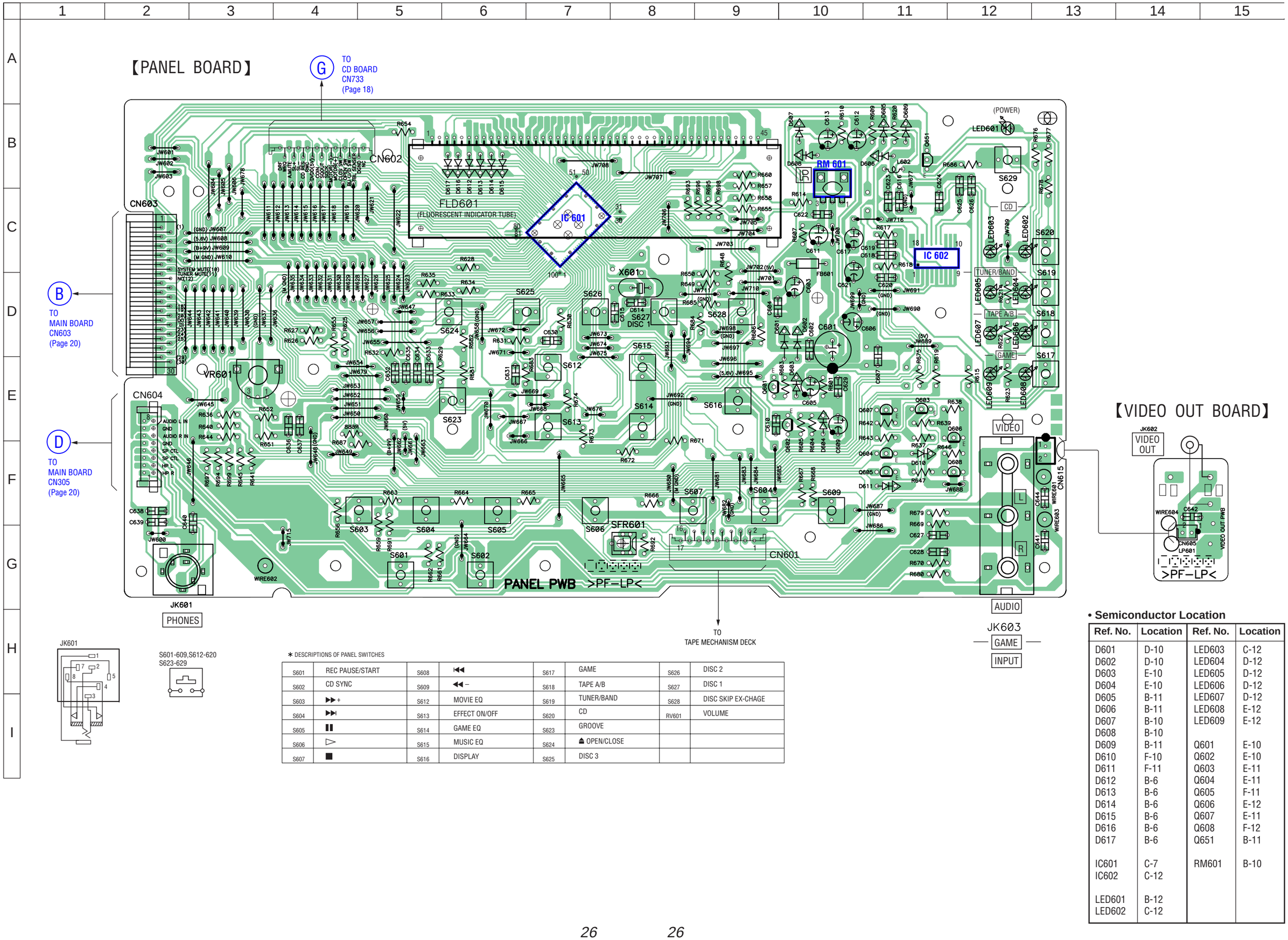


5-10. PRINTED WIRING BOARD ADDRESS SENSOR, DRIVER MOTOR SECTION • See page 15 for Circuit Boards Location.



5-11. PRINTED WIRING BOARD PANEL SECTION

• See page 15 for Circuit Boards Location.



JK601

S601-609,S612-620
S623-629

✶ DESCRIPTIONS OF PANEL SWITCHES

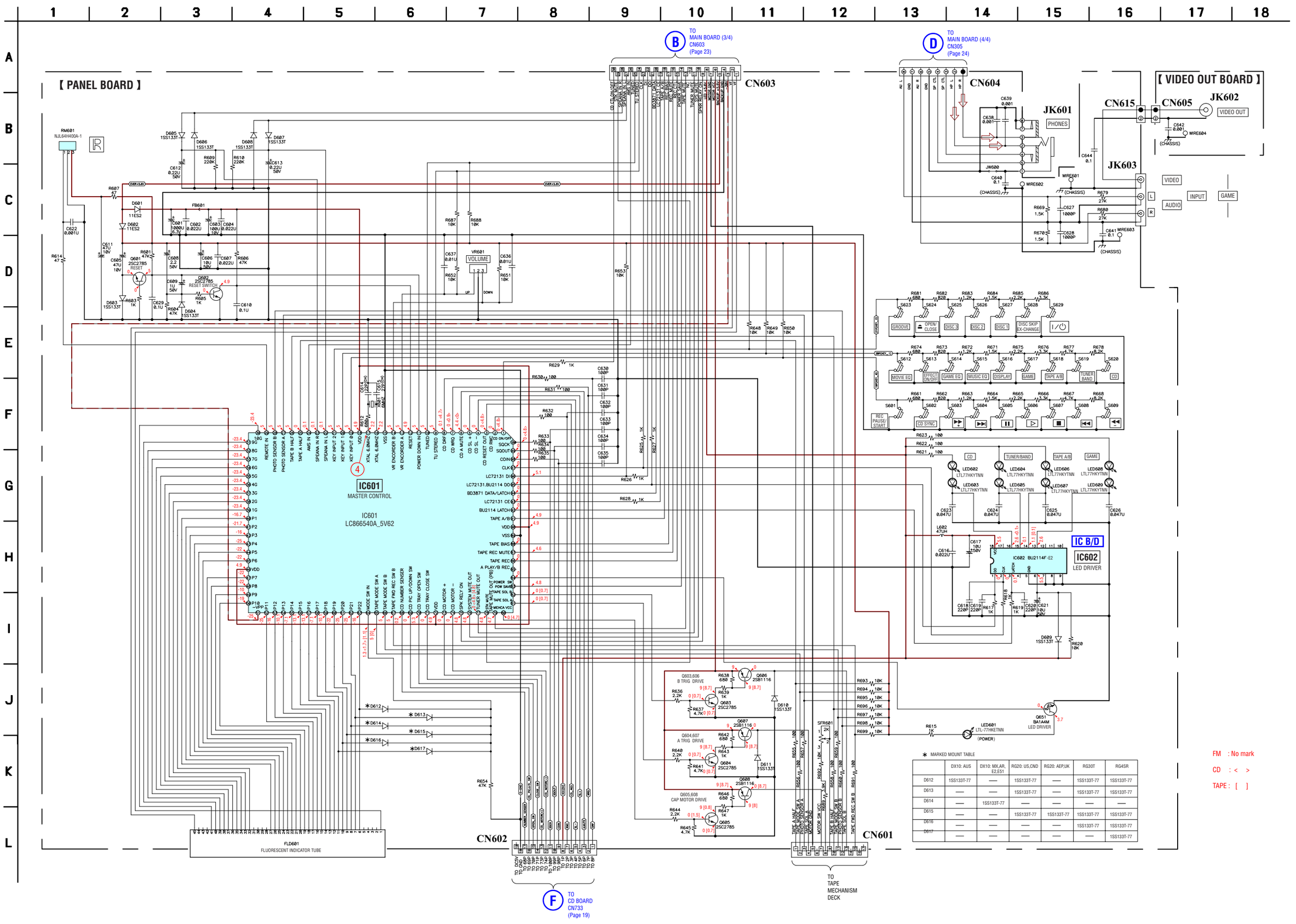
S601	REC PAUSE/START	S608	⏮	S617	GAME	S626	DISC 2
S602	CD SYNC	S609	◀◀ –	S618	TAPE A/B	S627	DISC 1
S603	▶▶ +	S612	MOVIE EQ	S619	TUNER/BAND	S628	DISC SKIP EX-CHAGE
S604	▶⏭	S613	EFFECT ON/OFF	S620	CD	RV601	VOLUME
S605	▮▮	S614	GAME EQ	S623	GROOVE		
S606	▷	S615	MUSIC EQ	S624	⏏ OPEN/CLOSE		
S607	■	S616	DISPLAY	S625	DISC 3		

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D601	D-10	LED603	C-12
D602	D-10	LED604	D-12
D603	E-10	LED605	D-12
D604	E-10	LED606	D-12
D605	B-11	LED607	D-12
D606	B-11	LED608	E-12
D607	B-10	LED609	E-12
D608	B-10		
D609	B-11	Q601	E-10
D610	F-10	Q602	E-10
D611	F-11	Q603	E-11
D612	B-6	Q604	E-11
D613	B-6	Q605	F-11
D614	B-6	Q606	E-12
D615	B-6	Q607	E-11
D616	B-6	Q608	F-12
D617	B-6	Q651	B-11
IC601	C-7	RM601	B-10
IC602	C-12		
LED601	B-12		
LED602	C-12		

5-12. SCHEMATIC DIAGRAM PANEL SECTION

• See page 15 for Waveform.

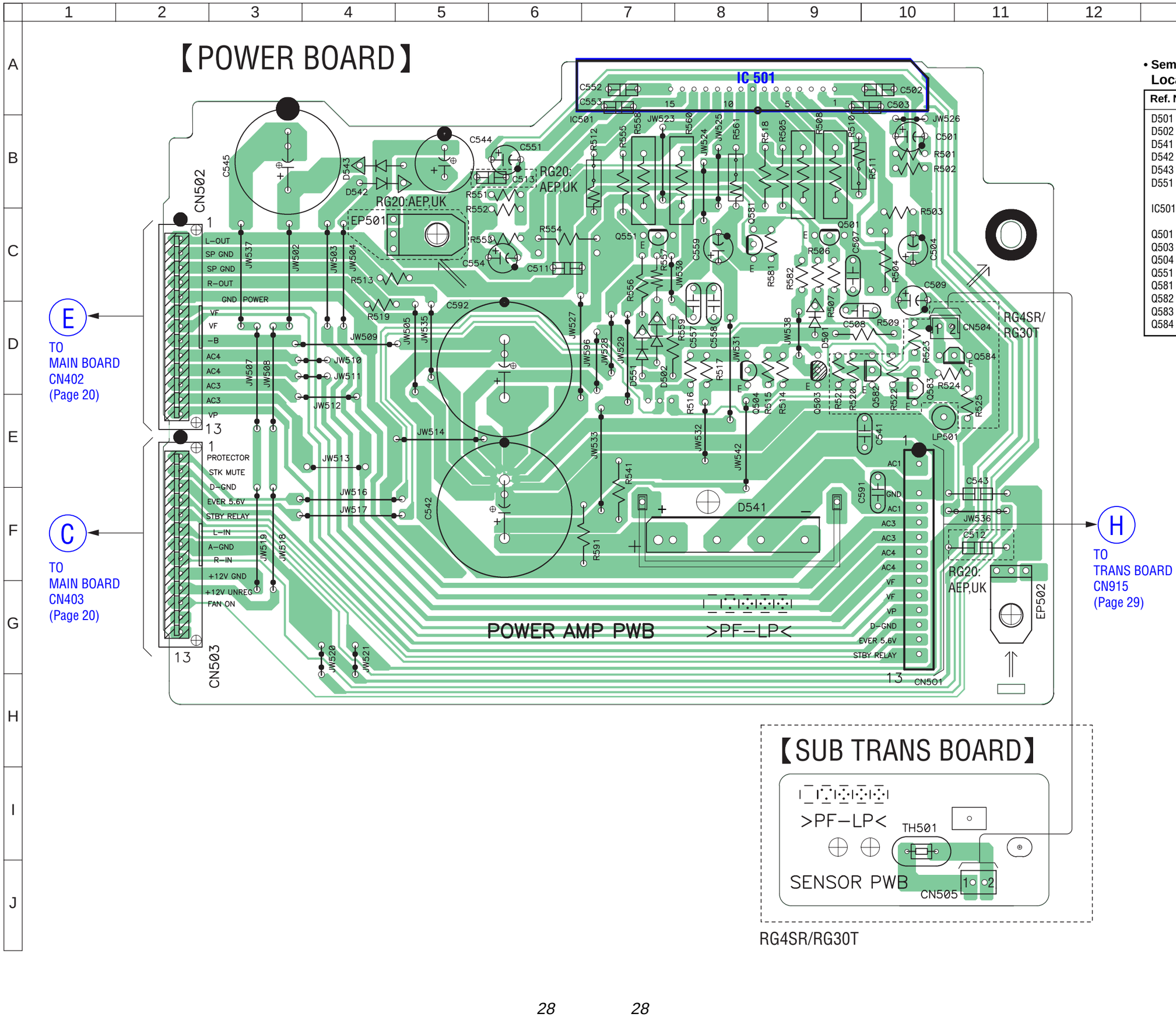


	DX10: AUS	DX10: MX,AR, E2,E51	RG20: US,CND	RG20: AEP,UK	RG30T	RG4SR
D612	1SS133T-77	—	1SS133T-77	—	1SS133T-77	1SS133T-77
D613	—	—	1SS133T-77	—	1SS133T-77	1SS133T-77
D614	—	1SS133T-77	—	—	—	—
D615	—	—	1SS133T-77	1SS133T-77	1SS133T-77	1SS133T-77
D616	—	—	—	—	1SS133T-77	1SS133T-77
D617	—	—	—	—	—	1SS133T-77

FM : No mark
CD : < >
TAPE : [ ]

5-13. PRINTED WIRING BOARD POWER SECTION

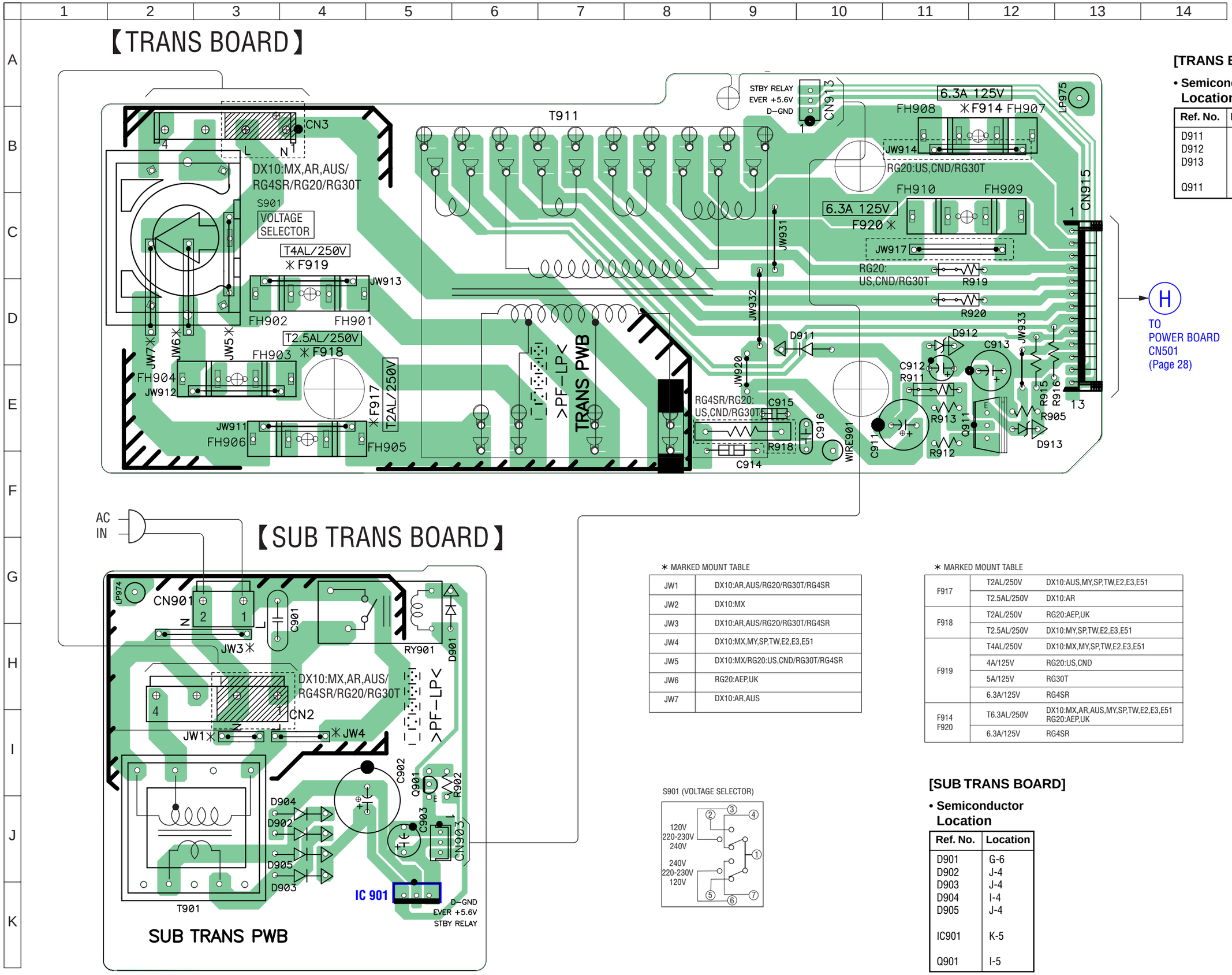
• See page 15 for Circuit Boards Location.



- **Semiconductor Location**

Ref. No.	Location
D501	D-9
D502	D-7
D541	F-9
D542	B-4
D543	B-4
D551	D-7
IC501	A-8
Q501	C-9
Q503	D-9
Q504	D-8
Q551	C-7
Q581	C-8
Q582	D-10
Q583	D-10
Q584	D-11

5-14. PRINTED WIRING BOARD TRANS SECTION • See page 15 for Circuit Boards Location.



[TRANS BOARD]

• **Semiconductor Location**

Ref. No.	Location
D911	D-10
D912	D-11
D913	E-12
Q911	E-12

✳ MARKED MOUNT TABLE

JW1	DX10:AR,AUS/RG20/RG30T/RG4SR
JW2	DX10:MX
JW3	DX10:AR,AUS/RG20/RG30T/RG4SR
JW4	DX10:MX,MY,SP,TW,E2,E3,E51
JW5	DX10:MX/RG20:US,CND/RG30T/RG4SR
JW6	RG20:AEP,UK
JW7	DX10:AR,AUS

✳ MARKED MOUNT TABLE

F917	T2AL/250V	DX10:AUS,MY,SP,TW,E2,E3,E51
	T2.5AL/250V	DX10:AR
F918	T2AL/250V	RG20:AEP,UK
	T2.5AL/250V	DX10:MY,SP,TW,E2,E3,E51
F919	T4AL/250V	DX10:MX,MY,SP,TW,E2,E3,E51
	4A/125V	RG20:US,CND
	5A/125V	RG30T
	6.3A/125V	RG4SR
F914 F920	T6.3AL/250V	DX10:MX,AR,AUS,MY,SP,TW,E2,E3,E51 RG20:AEP,UK
	6.3A/125V	RG4SR

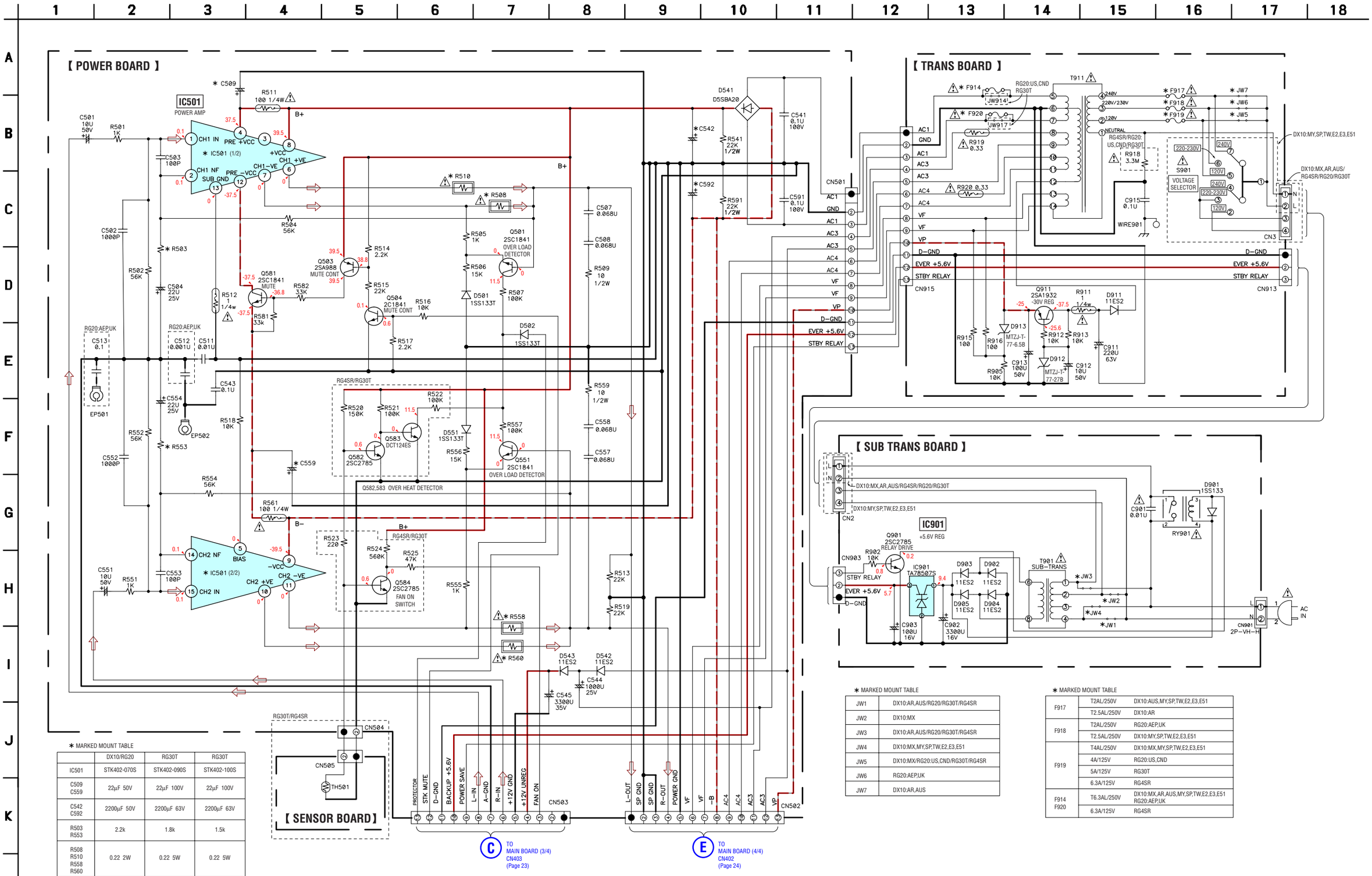
S901 (VOLTAGE SELECTOR)

[SUB TRANS BOARD]

• **Semiconductor Location**

Ref. No.	Location
D901	G-6
D902	J-4
D903	J-4
D904	I-4
D905	J-4
IC901	K-5
Q901	I-5

5-15. SCHEMATIC DIAGRAM TRANS SECTION



∗ MARKED MOUNT TABLE

	DX10/RG20	RG30T	RG30T
IC501	STK402-070S	STK402-090S	STK402-100S
C509 C559	22µF 50V	22µF 100V	22µF 100V
C542 C592	2200µF 50V	2200µF 63V	2200µF 63V
R503 R553	2.2k	1.8k	1.5k
R508 R510 R558 R560	0.22 2W	0.22 5W	0.22 5W

∗ MARKED MOUNT TABLE

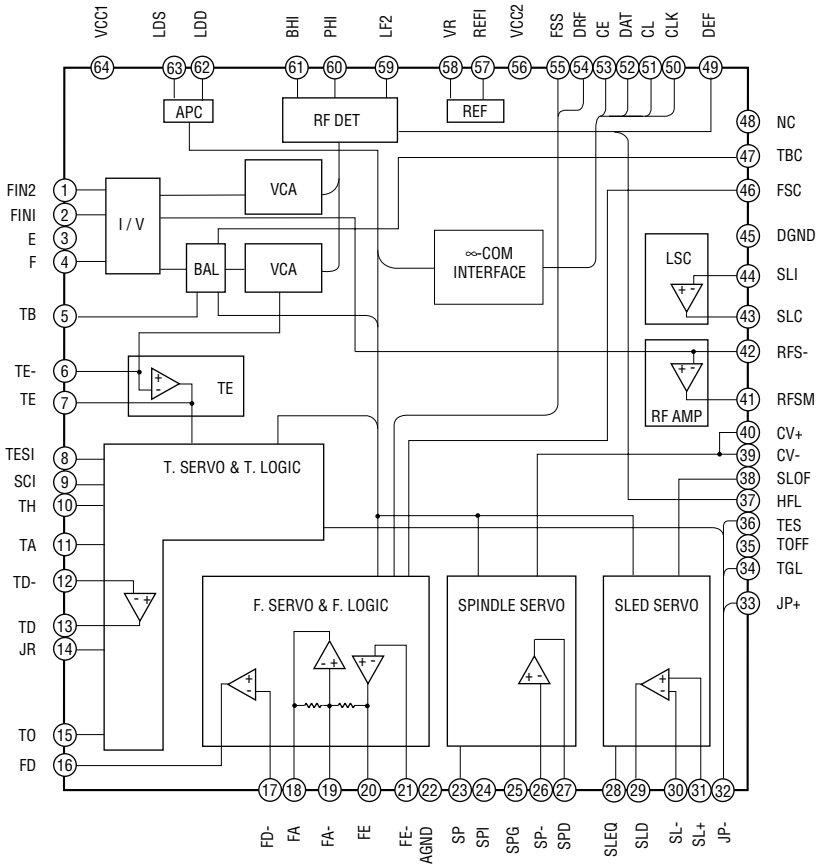
JW1	DX10:AR,AUS/RG20/RG30T/RG4SR
JW2	DX10:MX
JW3	DX10:AR,AUS/RG20/RG30T/RG4SR
JW4	DX10:MX,MY,SP,TW,E2,E3,E51
JW5	DX10:MX/RG20:US,CND/RG30T/RG4SR
JW6	RG20:AEP,UK
JW7	DX10:AR,AUS

∗ MARKED MOUNT TABLE

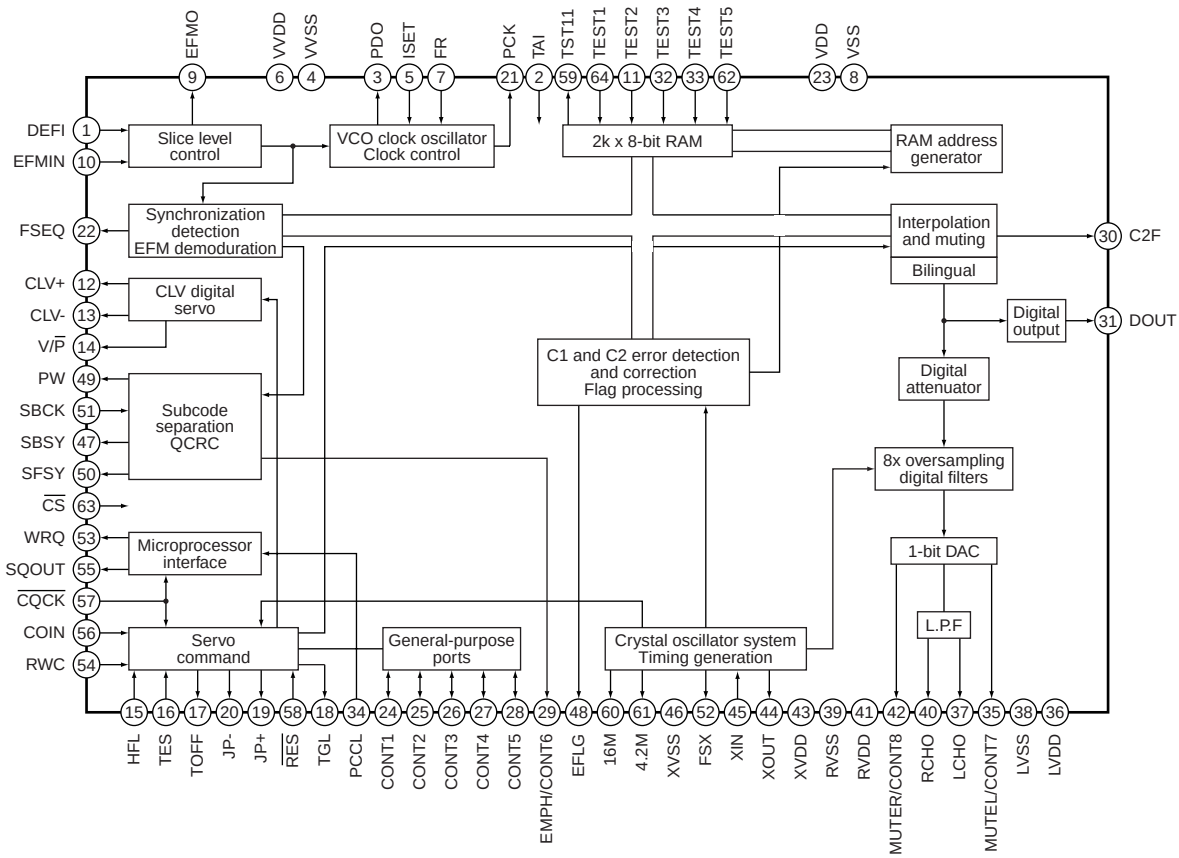
F917	T2AL/250V	DX10:AUS,MY,SP,TW,E2,E3,E51
	T2.5AL/250V	DX10:AR
F918	T2AL/250V	RG20:AEP,UK
	T2.5AL/250V	DX10:MY,SP,TW,E2,E3,E51
F919	T4AL/250V	DX10:MX,MY,SP,TW,E2,E3,E51
	4A/125V	RG20:US,CND
	5A/125V	RG30T
	6.3A/125V	RG4SR
F914 F920	T6.3AL/250V	DX10:MX,AR,AUS,MY,SP,TW,E2,E3,E51 RG20:AEP,UK
	6.3A/125V	RG4SR

5-16. IC BLOCK DIAGRAMS

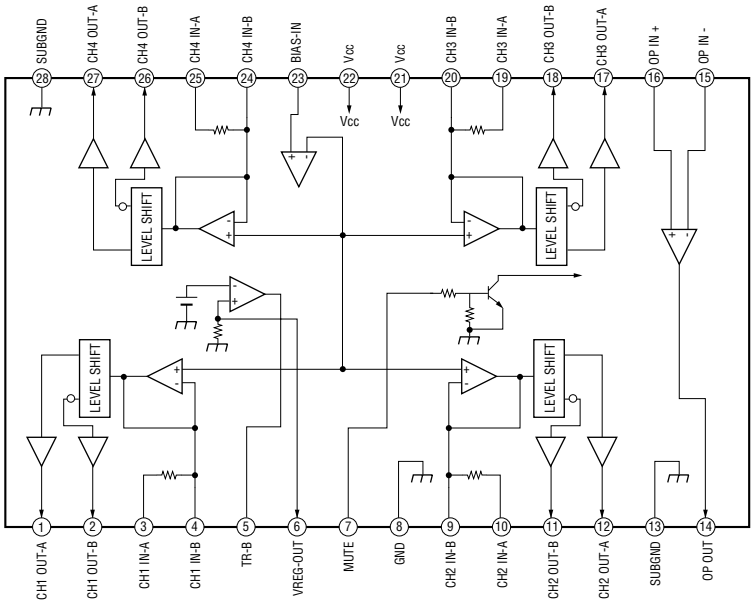
IC731 LA9241M (CD BOARD)



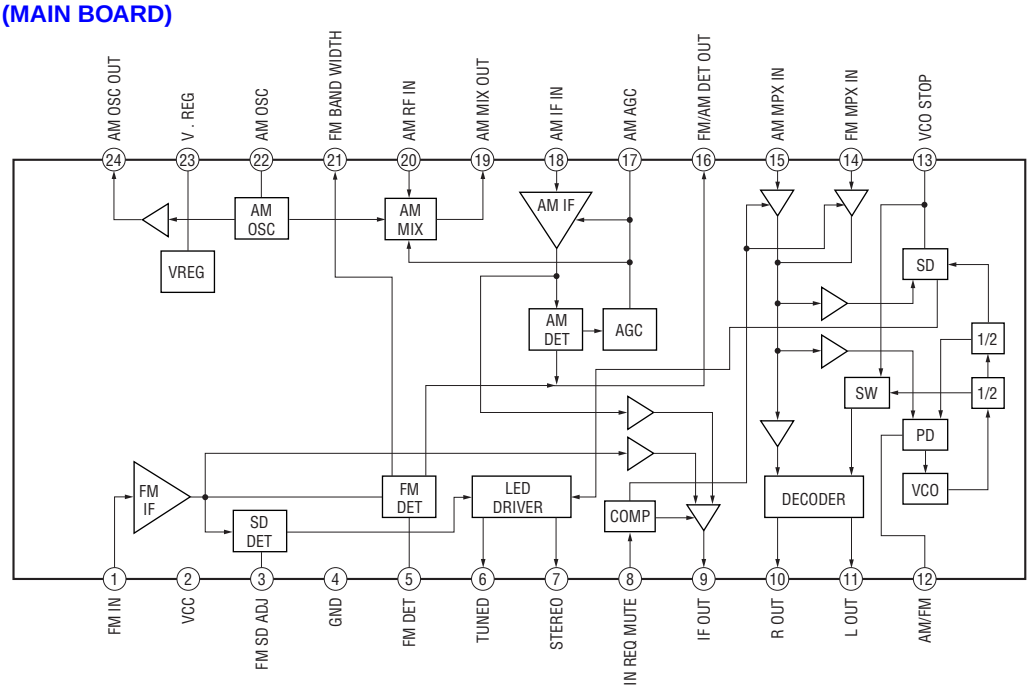
IC751 LC78622NE (CD BOARD)



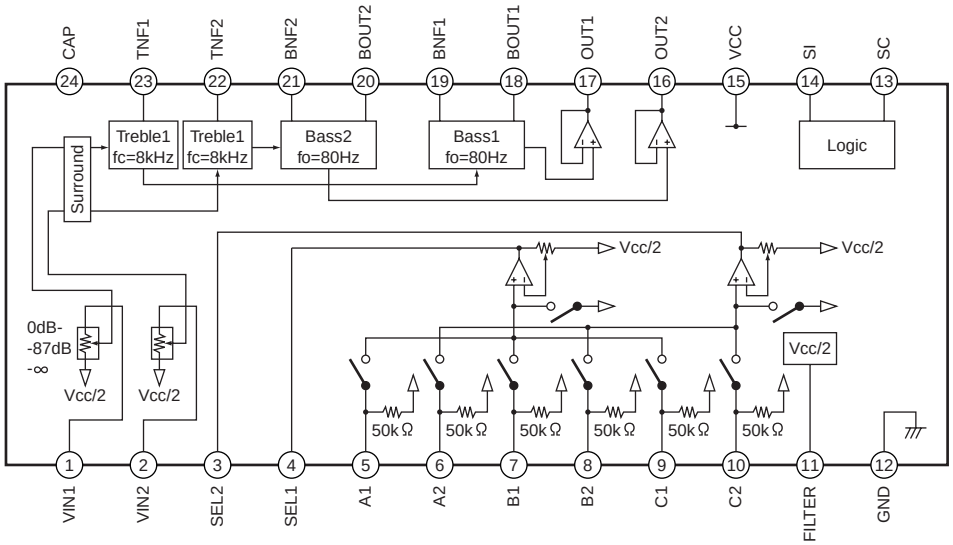
IC781 MN1469XH (CD BOARD)



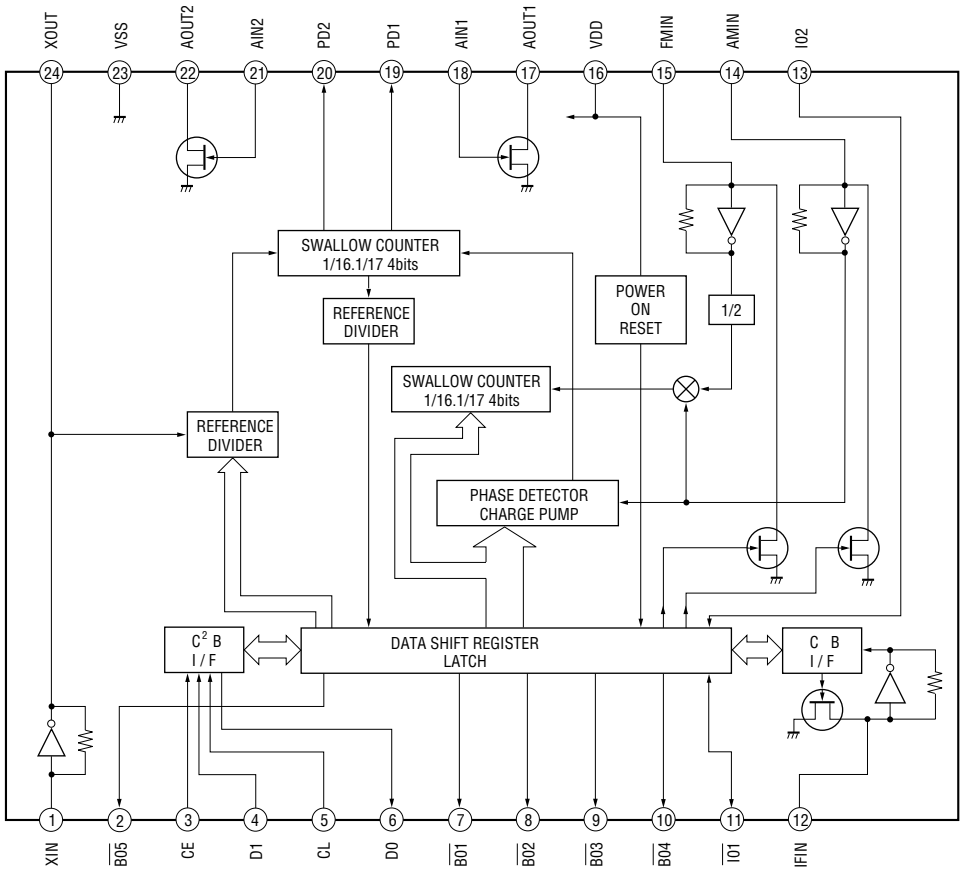
IC101 BA1450 (MAIN BOARD)



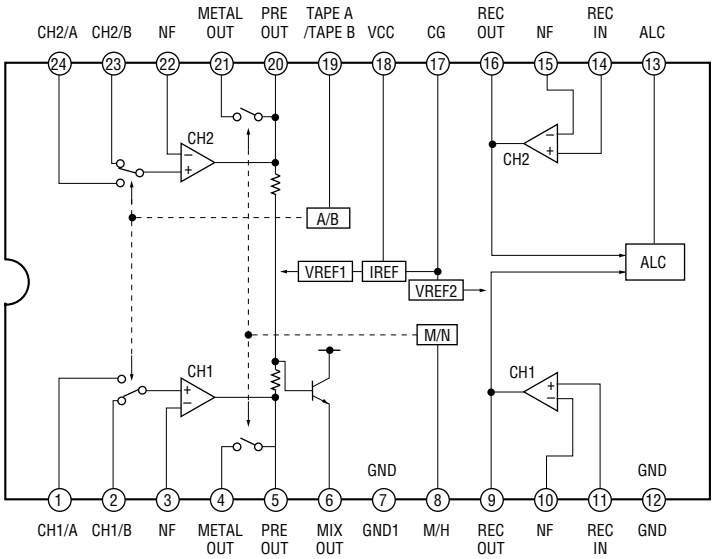
IC301 BD3871FS (MAIN BOARD)



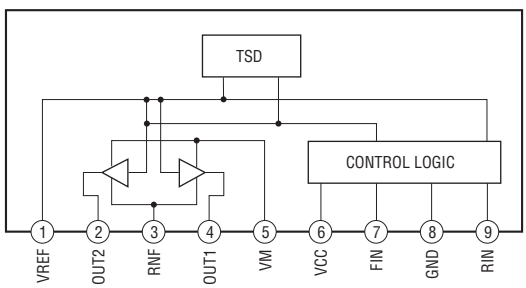
IC102 LC72130 (MAIN BOARD)



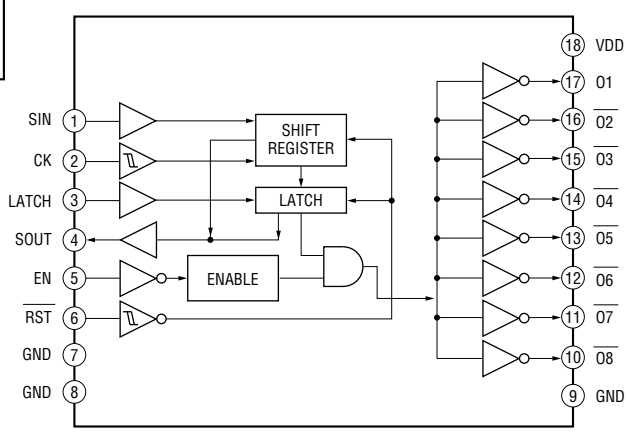
IC201 TA8189N (MAIN BOARD)



IC701 BA6956AN (DRIVER BOARD)



IC602 BU2114F-E2 (PANEL BOARD)



5-17. IC PIN FUNCTION DESCRIPTION

• IC601 LC866540A-5V62 (MASTER CONTROL)

Pin No.	Pin Name	I/O	Description
1	CD ON/OFF	O	CD power on/off control signal output
2	CD RWC	O	Read/write control signal output
3	CD RESET OUT	O	CD reset signal output
4	CD SL –	O	Sled movement control signal output
5	CD SL +	O	Sled movement control signal output
6	CD A MUTE	O	CD audio mute signal output
7	CD WRQ	I	Subcode Q standby signal input
8	CD DRF	I	RF level detection signal input
9	TU STEREO	I	Stereo tuning signal input
10	TUNED	I	Tuning a frequency signal input
11	POWER DOWN IN	I	Power down signal input
12	RESET	–	Reset
13	VR ENCODER A	I	Volume signal input from the rotary encoder
14	VR ENCODER B	I	Volume signal input from the rotary encoder
15	VSS	–	Ground
16	XTAL 6.0MHZ	–	Connection for a crystal resonator
17	XTAL 6.0MHZ	–	Connection for a crystal resonator
18	VDD	–	Power supply
19	KEY INPUT 0	I	Function key input
20	KEY INPUT 1	I	Function key input
21	KEY INPUT 2	I	Function key input
22	SPEANA IN L	I	Spectrum analyzer signal input
23	SPEANA IN R	I	Spectrum analyzer signal input
24	AMS IN	I	AMS signal input
25	TAPE A HALF	I	A deck half detect signal input
26	TAPE B HALF	I	B deck half detect signal input
27	PHOTO SENSOR A	I	A deck photo sensor signal input
28	PHOTO SENSOR B	I	B deck photo sensor signal input
29	REMOTE IN	I	Data signal input from the remote control sensor
30 - 39	10G - 1G	O	FL tube grid signal output
40 - 41	P1 - P2	O	FL tube grid signal output
42 - 45	P3 - P6	O	FL tube segment signal output
46	VDD	–	Power supply
47 - 50	P7 - P10	O	FL tube segment signal output
51	–VPP	–	FL tube pull-down voltage supply
52 - 63	P11 - P22	O	FL tube segment signal output
64	MODE SW IN	I	Pull-down
65	TAPE MODE SW A	I	Tape mode switch signal input
66	TAPE MODE SW B	I	Tape mode switch signal input
67	TAPE FWD REC SW B	I	Tape B REC switch detect signal input
68	CD NUMBER SENSOR	I	Table address sensor signal input
69	CD PIC UP/DOWN SW	I	CD BU up/down switch signal input
70	CD TRAY OPEN SW	I	CD tray open switch signal input
71	CD TRAY CLOSE SW	I	CD tray close switch signal input
72	VDD	–	Power supply
73	CD MOTOR +	O	CD changer motor control signal output
74	CD MOTOR –	O	CD changer motor control signal output
75	SPK RELY ON	O	Speaker relay control signal output
76	SYSTEM MUTE OUT	O	system mute signal output
77	TUNER MUTE OUT	O	Tuner mute signal output

Pin No.	Pin Name	I/O	Description
78	STK MUTE	O	Power amplifier mute signal output
79	TAPE MUTE OUT(PB)	O	Tape mute signal output
80	MECHA VCC	O	Tape motor control signal output
81	TAPE SOL A	O	Solenoid control signal output
82	TAPE SOL B	O	Solenoid control signal output
83	POW SAVE	O	Standby relay control signal output
84	POWER SW	O	Power switch LED control signal output
85	A PLAY/B REC	–	N.C.
86	TAPE REC	O	Tape REC control signal output
87	TAPE REC MUTE	O	Tape REC mute signal output
88	TAPE BIAS	O	Tape bias control signal output
89	VSS	–	Ground
90	VDD	–	Power supply
91	TAPE A/B	O	Deck A/B selection control signal output
92	BU2114 LATCH	O	LED driver IC latch signal output
93	LC72131 CE	O	PLL tuner IC chip select signal output
94	BD3871 DATA/LATCH	O	Sound processor data/latch signal output
95	LC72131 BU2114 DO	O	Data signal output for PLL synthesizer IC and LED driver IC
96	LC72131 DI	I	Data signal input from PLL synthesizer IC
97	CLK	O	Clock signal output for PLL synthesizer IC, sound processor and LED driver IC
98	COIN	O	CD command data signal output
99	SQOUT	I	CD subcode Q signal input
100	SQCK	O	CD command clock signal output

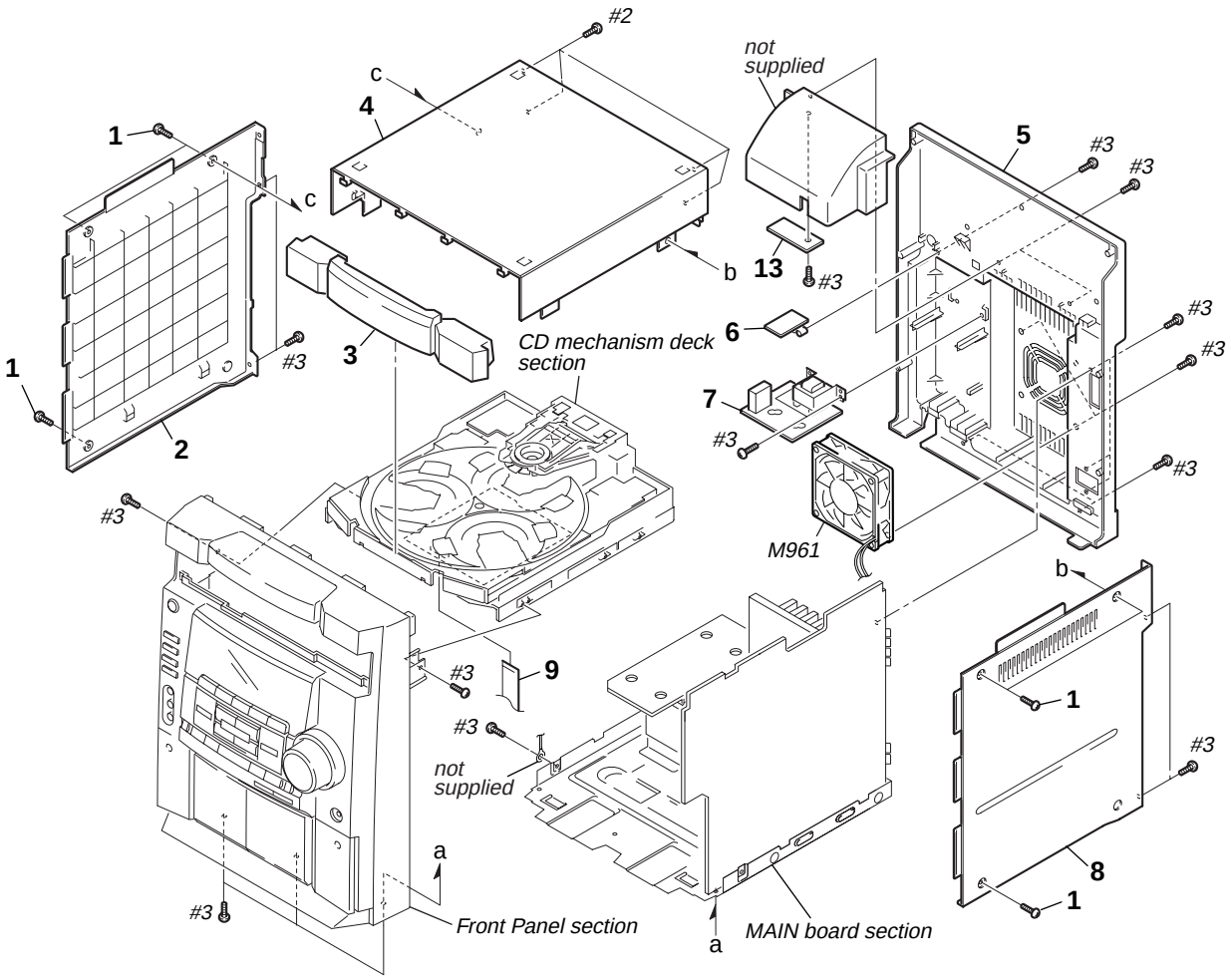
SECTION 6
EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  CND : Canadian model
  AUS : Australian model
  AR : Argentina model
  SP : Singapore model
  TW : Taiwan model
  MX : Mexican model
  MY : Malaysia model
  E2 : 120V AC Area in E model
  E3 : 240V AC Area in E model
  E51 : Chilean and Peruvian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

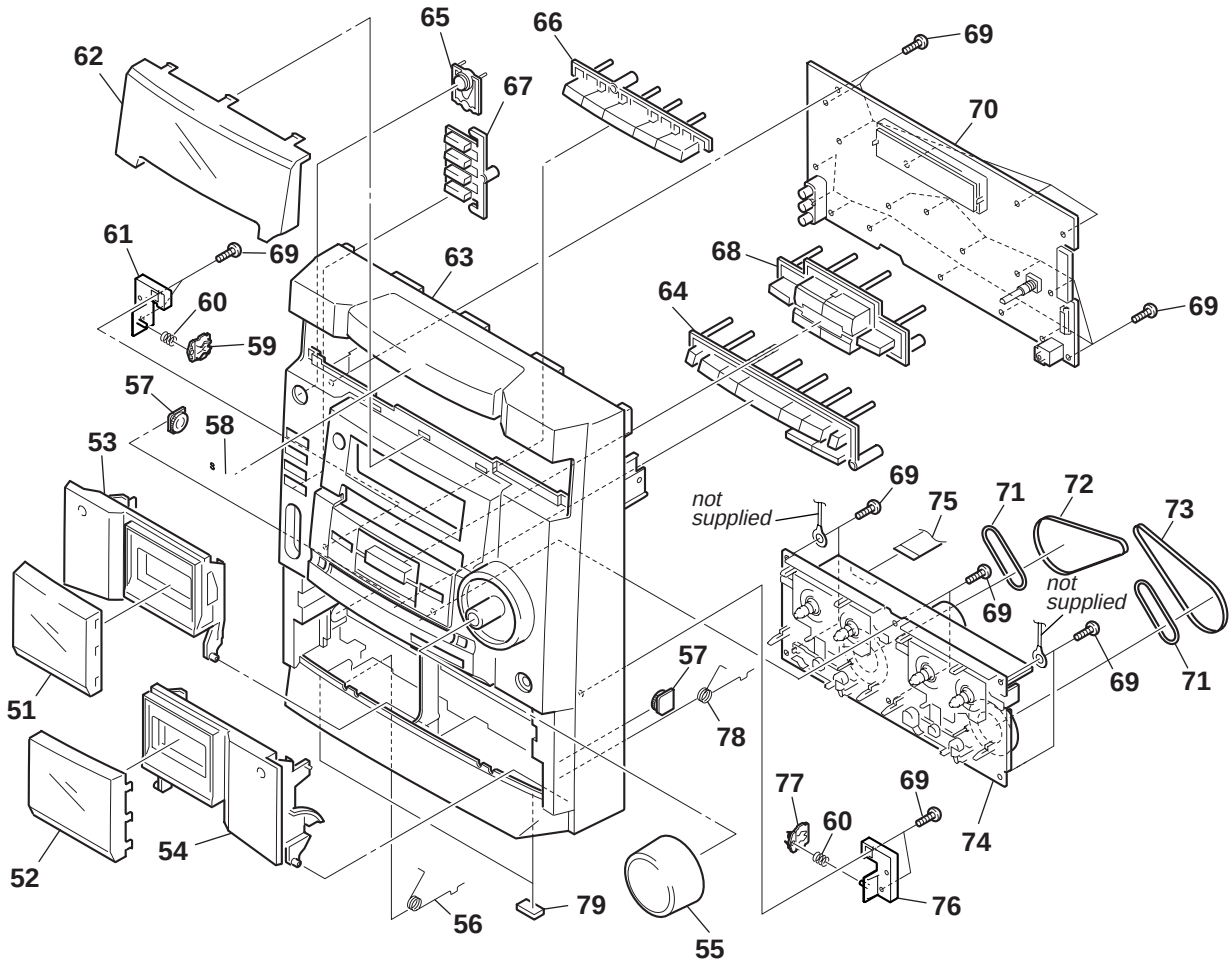
6-1. MAIN SECTION



Ref. No.	Part No.	Description	Remarks
1	3-363-099-41	SCREW (CASE 3 TP2)	
2	4-224-549-21	CASE (SIDE-L)	
3	4-234-702-01	CD DOOR (RG20)	
3	4-234-702-11	CD DOOR (DX10)	
3	4-234-702-21	CD DOOR (RG30T)	
3	4-234-702-31	CD DOOR (RG4SR)	
4	4-224-550-41	CASE (TOP) (DX10/RG20:CND, AEP, UK/RG30T:CND)	
4	4-224-550-81	CASE (TOP) (RG4SR/RG20:US/RG30T:US)	
5	4-234-701-01	BACK PANEL (RG20:US, CND)	
5	4-234-701-11	BACK PANEL (RG20:AEP, UK)	
5	4-234-701-21	BACK PANEL (DX10:TW, E2, E3, E51)	
5	4-234-701-31	BACK PANEL (DX10:MX, AR, AUS)	
5	4-234-701-41	BACK PANEL (RG30T)	
5	4-234-701-51	BACK PANEL (RG4SR)	
5	4-234-701-61	BACK PANEL (DX10:MY, SP)	

Ref. No.	Part No.	Description	Remarks
6	A-4726-511-A	VIDEO OUT BOARD, COMPLETE	
7	A-4726-513-A	SUB TRANS BOARD, COMPLETE (RG4SR/RG20:US, CND/RG30T)	
7	A-4726-772-A	SUB TRANS BOARD, COMPLETE (RG20:AEP, UK)	
7	A-4726-922-A	SUB TRANS BOARD, COMPLETE (DX10:AUS)	
7	A-4726-925-A	SUB TRANS BOARD, COMPLETE (DX10:MY, SP, TW, E2, E3, E51)	
7	A-4726-928-A	SUB TRANS BOARD, COMPLETE (DX10:MX)	
7	A-4726-929-A	SUB TRANS BOARD, COMPLETE (DX10:AR)	
8	4-224-548-61	CASE (SIDE-R) (DX10/RG20/RG30T)	
8	4-224-548-71	CASE (SIDE-R) (RG4SR)	
9	1-791-897-11	WIRE (FLAT TYPE) (19 CORE)	
13	1-681-442-11	SENSOR BOARD	
M961	1-763-072-11	FAN, DC (RG4SR/RG30T)	

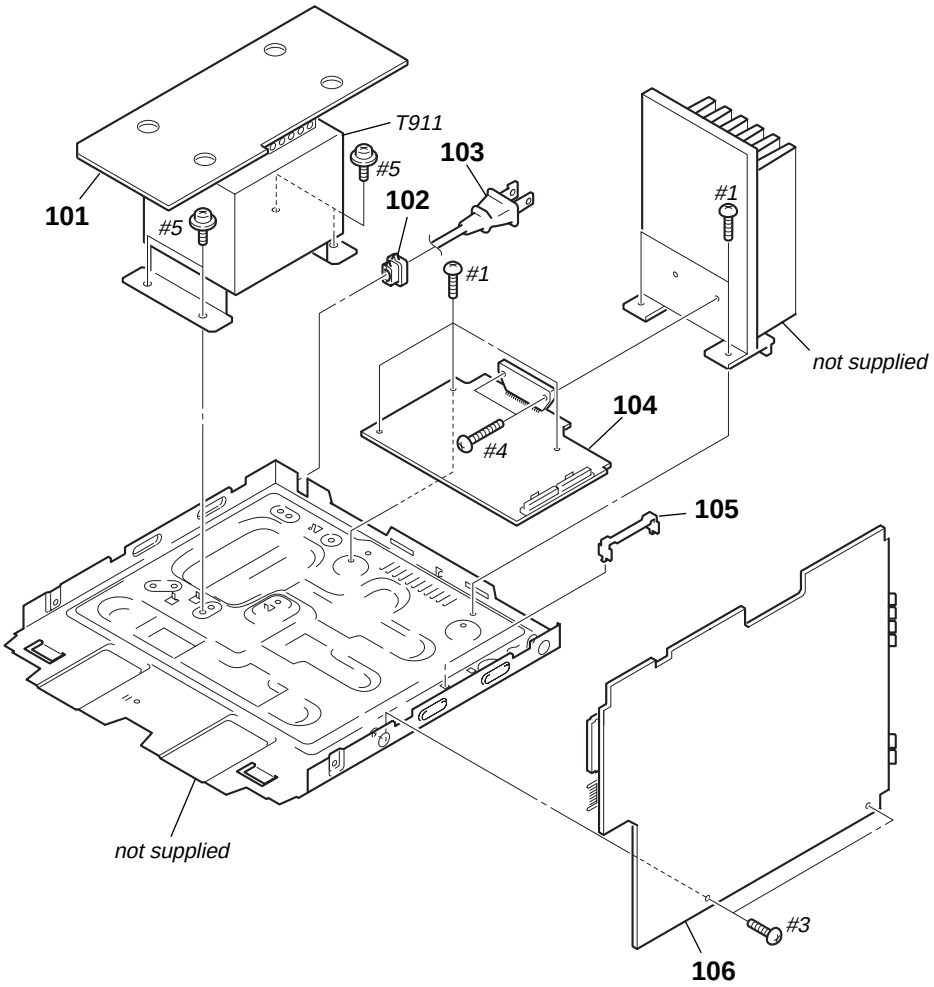
6-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remarks
51	4-235-533-01	CASS WINDOW (L)	
52	4-235-534-01	CASS WINDOW (R)	
53	4-234-704-01	CASS DOOR (L) (RG4SR/RG20/RG30T)	
53	4-234-704-11	CASS DOOR (L) (DX10)	
54	4-234-705-01	CASS DOOR (R) (RG4SR/RG20/RG30T)	
54	4-234-705-11	CASS DOOR (R) (DX10)	
55	4-235-535-01	VOLUME KNOB (RG4SR/RG20/RG30T)	
55	4-235-535-11	VOLUME KNOB (DX10)	
56	4-233-981-01	CASSETTE DOOR SPRING L	
57	4-224-104-11	DAMPER	
58	4-235-398-01	EMBLEM, SONY	
59	4-224-560-01	CAM (L), HEART	
60	4-224-803-01	SPRING (PUSH), COMPRESSION	
61	4-224-562-21	BRACKET (HEART CAM L)	
62	4-234-703-01	DISPLAY WINDOW	
63	4-234-700-01	FRONT PANEL (RG4SR/RG20/RG30T)	
63	4-234-700-11	FRONT PANEL (DX10)	
64	4-234-711-01	CD CONTROL BUTTON (RG4SR/RG20/RG30T)	
64	4-234-711-11	CD CONTROL BUTTON (DX10)	
65	X-4953-968-1	POWER BUTTON ASSY (RG4SR/RG20/RG30T)	
65	X-4954-153-1	POWER BUTTON ASSY (DX10)	
66	4-234-708-01	DISC BUTTON (RG4SR/RG20/RG30T)	
66	4-234-708-11	DISC BUTTON (DX10)	

Ref. No.	Part No.	Description	Remarks
67	4-234-709-01	FUNCTION BUTTON	
68	4-234-710-01	MUSIC BUTTON (RG4SR/RG20/RG30T)	
68	4-234-710-11	MUSIC BUTTON (DX10)	
69	4-951-620-01	SCREW (2.6X8), +BVTP	
70	A-4726-509-A	PANEL BOARD, COMPLETE (RG20:US, CND)	
70	A-4726-769-A	PANEL BOARD, COMPLETE (RG20:AEP, UK)	
70	A-4726-776-A	PANEL BOARD, COMPLETE (RG30T)	
70	A-4726-780-A	PANEL BOARD, COMPLETE (RG4SR)	
70	A-4726-920-A	PANEL BOARD, COMPLETE (DX10:AUS)	
70	A-4726-923-A	PANEL BOARD, COMPLETE (DX10:MY, SP, TW, E3)	
70	A-4726-926-A	PANEL BOARD, COMPLETE (DX10:MX, AR, E2, E51)	
71	4-235-777-01	BELT (FR)	
72	4-235-775-01	BELT (BF)	
73	4-235-776-01	BELT (AF)	
74	1-796-122-11	DECK, MECH	
75	1-823-058-11	WIRE (FLAT TYPE) (17 CORE)	
76	4-224-561-01	BRACKET (HEART CAM R)	
77	4-224-559-01	CAM (R), HEART	
78	4-233-982-01	CASSETTE DOOR SPRING R	
79	4-233-980-01	RUBBER FOOT	

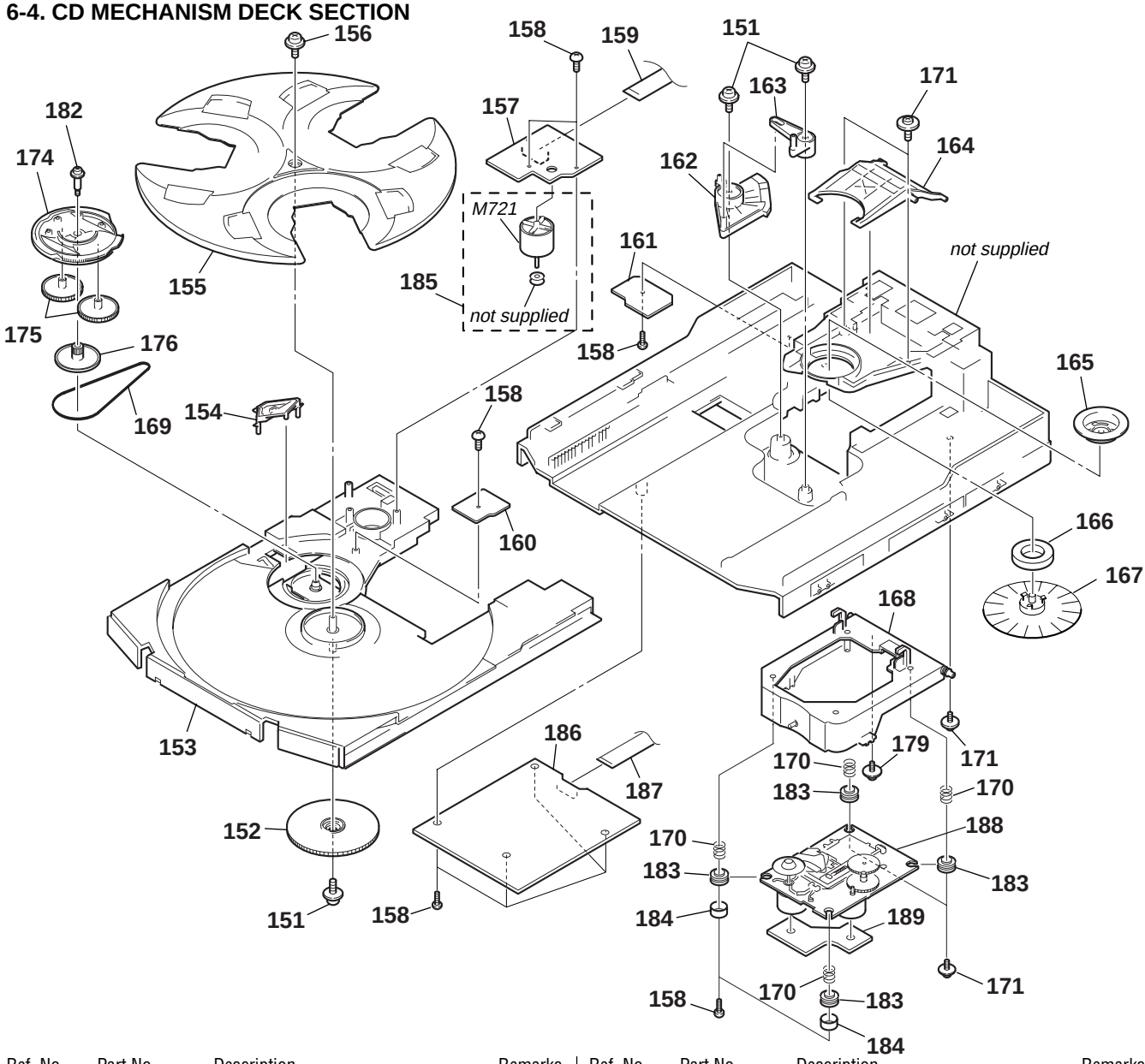
6-3. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remarks
101	A-4726-512-A	TRANS BOARD, COMPLETE (RG20:US, CND/RG30T)	
101	A-4726-771-A	TRANS BOARD, COMPLETE (RG20:AEP, UK)	
101	A-4726-782-A	TRANS BOARD, COMPLETE (RG4SR)	
101	A-4726-921-A	TRANS BOARD, COMPLETE (DX10:AR, AUS)	
101	A-4726-924-A	TRANS BOARD, COMPLETE (DX10:MY, SP, TW, E2, E3, E51)	
101	A-4726-927-A	TRANS BOARD, COMPLETE (DX10:MX)	
102	4-966-266-01	BUSHING (S) (FBS002), CORD (DX10:MX, E2, E3)	
* 102	3-703-244-00	BUSHING (2104), CORD (DX10:MY, SP, TW, AR, AUS, E51/RG4SR/RG20/RG30T)	
⚠103	1-791-901-21	CORD, POWER (DX10:MX, E2, E3)	
⚠103	1-690-608-11	CORD, POWER (DX10:AUS)	
⚠103	1-777-071-81	CORD, POWER (DX10:MY, SP, TW, E51/RG20:AEP, UK)	
⚠103	1-783-532-11	CORD, POWER (RG4SR/RG20:US, CND/RG30T)	
⚠103	1-783-941-22	CORD, POWER (DX10:AR)	
104	A-4726-510-A	POWER BOARD, COMPLETE (DX10/RG20:US, CND)	
104	A-4726-770-A	POWER BOARD, COMPLETE (RG20:AEP, UK)	
104	A-4726-777-A	POWER BOARD, COMPLETE (RG30T)	
104	A-4726-781-A	POWER BOARD, COMPLETE (RG4SR)	
105	4-988-533-01	HOLDER, PWB	
106	A-4440-407-A	MAIN BOARD, COMPLETE (DX10/RG20:US, CND)	
106	A-4440-486-A	MAIN BOARD, COMPLETE (RG20:AEP, UK)	
106	A-4440-488-A	MAIN BOARD, COMPLETE (RG30T)	
106	A-4440-490-A	MAIN BOARD, COMPLETE (RG4SR)	
⚠T911	1-437-385-11	TRANSFORMER, POWER (RG20:US, CND)	
⚠T911	1-437-386-11	TRANSFORMER, POWER (RG20:AEP, UK)	
⚠T911	1-437-387-11	TRANSFORMER, POWER (DX10)	
⚠T911	1-437-388-11	TRANSFORMER, POWER (RG4SR)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-4. CD MECHANISM DECK SECTION



Ref. No.	Part No.	Description	Remarks
151	4-218-254-21	SCREW (M2.6), +PTPWH	
152	4-231-187-01	CAM (RELAY)	
153	4-231-177-01	TABLE (NEW)	
154	4-231-181-01	LEVER (CHANGE)	
155	4-231-178-01	TRAY	
156	4-933-134-51	SCREW (+PTPWH 2.6X8)	
157	1-675-910-14	MOTOR BOARD	
158	4-951-620-01	SCREW (2.6X8), +BVTP	
159	1-791-983-11	WIRE (FLAT TYPE) (8 CORE)	
160	1-675-911-14	ADDRESS SENSOR BOARD	
161	1-675-912-14	DRIVER BOARD	
162	X-4953-283-2	CAM (U/D) ASSY	
163	4-231-186-01	LEVER (EX)	
164	4-231-190-01	LEVER (LIFTER)	
165	4-231-189-01	PULLEY (B), CHUCKING	
166	1-471-035-11	MAGNET ASSY	
167	X-4953-282-1	PULLEY (A) ASSY, CHUCKING	
168	X-4953-281-1	HOLDER (BU) ASSY	

Ref. No.	Part No.	Description	Remarks
169	4-222-095-01	BELT	
170	4-227-045-11	SPRING (INSULATOR), COIL	
171	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
174	4-231-180-01	CAM (CONTROL)	
175	4-231-182-01	GEAR (U)	
176	4-231-183-01	PULLEY (S)	
179	4-227-899-01	SCREW (DIA. 12), FROATING	
182	4-222-097-01	SCREW, STEP	
183	4-227-549-11	INSULATOR	
184	4-231-151-01	STOPPER (BU)	
185	A-4672-826-A	MOTOR ASSY	
186	A-4726-517-A	CD BOARD, COMPLETE (DX10/RG4SR/RG20:US, CND/RG30T)	
186	A-4726-775-A	CD BOARD, COMPLETE (RG20:AEP, UK)	
187	1-823-059-11	WIRE (FLAT TYPE) (16 CORE)	
⚠188	A-4735-357-A	BASE ASSY, OP (KSM-213D)	
189	1-682-124-11	SPDL BOARD	
M721	1-541-632-11	MOTOR, DC (TURN)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ADDRESS SENSOR | CD

SECTION 7 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...
- Abbreviation
  CND : Canadian model
  AUS : Australian model
  AR : Argentina model
  SP : Singapore model
  TW : Taiwan model

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

MX : Mexican model
MY : Malaysia model
E2 : 120V AC Area in E model
E3 : 240V AC Area in E model
E51 : Chilean and Peruvian model

Ref. No.	Part No.	Description			Remarks
	1-675-911-14	ADDRESS SENSOR BOARD			
		**********			
		< CAPACITOR >			
C712	1-164-159-11	CERAMIC	0.1uF		50V
		< IC >			
IC711	8-749-014-38	PHOTO INTERRUPTER SG-264			
IC711	8-749-016-76	IC RPI-321			
		< RESISTOR >			
R711	1-247-876-11	CARBON	75K	5%	1/4W
R712	1-249-409-11	CARBON	220	5%	1/4W F
R713	1-249-429-11	CARBON	10K	5%	1/4W
		< SWITCH >			
S711	1-771-821-11	SWITCH, PUSH (1 KEY)(UP DOWN SW)			
**********					
	A-4726-517-A	CD BOARD, COMPLETE (DX10/RG4SR/RG20:US, CND/RG30T)			
		**********			
	A-4726-775-A	CD BOARD, COMPLETE (RG20:AEP, UK)			
		**********			
		< CAPACITOR >			
C704	1-164-159-11	CERAMIC	0.1uF		50V
C705	1-126-947-11	ELECT	47uF	20%	10V
C706	1-164-159-21	CERAMIC	0.1uF		50V
C707	1-126-964-11	ELECT	10uF	20%	50V
C708	1-161-494-00	CERAMIC	0.022uF		25V
C709	1-104-665-11	ELECT	100uF	20%	10V
C710	1-104-665-11	ELECT	100uF	20%	10V
C711	1-162-306-11	CERAMIC	0.01uF	20%	16V
C712	1-126-960-11	ELECT	1uF	20%	50V
C713	1-136-171-00	FILM	0.33uF	5%	50V
C714	1-126-947-11	ELECT	47uF	20%	10V
C715	1-162-294-31	CERAMIC	0.001uF	10%	50V
C716	1-126-947-11	ELECT	47uF	20%	10V
C717	1-126-964-11	ELECT	10uF	20%	50V
C718	1-161-494-00	CERAMIC	0.022uF		25V

Ref. No.	Part No.	Description			Remarks
C719	1-161-494-00	CERAMIC	0.022uF		25V
C720	1-104-665-11	ELECT	100uF	20%	10V
C723	1-126-957-11	ELECT	0.22uF	20%	50V
C724	1-130-489-00	MYLAR	0.033uF	5%	50V
C725	1-162-288-31	CERAMIC	330PF	10%	50V
C726	1-136-171-00	FILM	0.33uF	5%	50V
C727	1-136-167-00	FILM	0.15uF	5%	50V
C728	1-127-869-11	CERAMIC	2700PF	10%	50V
C730	1-130-485-00	MYLAR	0.015uF	5%	50V
C731	1-130-486-00	MYLAR	0.018uF	10%	50V
C732	1-130-493-00	MYLAR	0.068uF	5%	50V
C734	1-164-159-11	CERAMIC	0.1uF		50V
C735	1-162-286-31	CERAMIC	220PF	10%	50V
C736	1-136-171-00	FILM	0.33uF	5%	50V
C737	1-162-306-11	CERAMIC	0.01uF	20%	16V
C738	1-162-292-31	CERAMIC	680PF	10%	50V
C739	1-162-600-11	CERAMIC	0.0047uF	10%	16V
C740	1-162-286-31	CERAMIC	220PF	10%	50V
C741	1-126-959-11	ELECT	0.47uF	20%	50V
C742	1-126-947-11	ELECT	47uF	20%	10V
C743	1-126-960-11	ELECT	1uF	20%	50V
C744	1-127-870-31	CERAMIC	3300PF	10%	50V
C745	1-162-191-31	CERAMIC	2.2PF	10%	50V
C746	1-162-306-11	CERAMIC	0.01uF	20%	16V
C747	1-164-159-11	CERAMIC	0.1uF		50V
C748	1-162-294-31	CERAMIC	0.001uF	10%	50V
C749	1-162-203-31	CERAMIC	15PF	5%	50V
C750	1-126-963-11	ELECT	4.7uF	20%	50V
C751	1-164-159-11	CERAMIC	0.1uF		50V
C752	1-164-159-11	CERAMIC	0.1uF		50V
C753	1-164-159-11	CERAMIC	0.1uF		50V
C754	1-162-286-31	CERAMIC	220PF	10%	50V
C755	1-161-494-00	CERAMIC	0.022uF		25V
C756	1-126-947-11	ELECT	47uF	20%	10V
C757	1-161-494-00	CERAMIC	0.022uF		25V
C758	1-126-947-11	ELECT	47uF	20%	10V
C759	1-164-159-11	CERAMIC	0.1uF		50V
C760	1-162-284-31	CERAMIC	150PF	10%	50V
C761	1-162-206-31	CERAMIC	20PF	5%	50V
C762	1-162-206-31	CERAMIC	20PF	5%	50V
C763	1-126-947-11	ELECT	47uF	20%	10V
C764	1-161-494-00	CERAMIC	0.022uF		25V
C765	1-161-494-00	CERAMIC	0.022uF		25V
C766	1-161-494-00	CERAMIC	0.022uF		25V
C767	1-162-282-31	CERAMIC	100PF	10%	50V

Ref. No.	Part No.	Description			Remarks
C768	1-162-282-31	CERAMIC	100PF	10%	50V
C769	1-162-282-31	CERAMIC	100PF	10%	50V
C770	1-162-282-31	CERAMIC	100PF	10%	50V
C771	1-126-964-11	ELECT	10uF	20%	50V
C772	1-126-964-11	ELECT	10uF	20%	50V
C773	1-127-866-11	CERAMIC	1500PF	10%	50V
C774	1-127-866-11	CERAMIC	1500PF	10%	50V
C775	1-162-282-31	CERAMIC	100PF	10%	50V
C776	1-162-282-31	CERAMIC	100PF	10%	50V
C777	1-126-947-11	ELECT	47uF	20%	10V
C781	1-126-926-11	ELECT	1000uF	20%	10V
C782	1-164-159-11	CERAMIC	0.1uF		50V
C786	1-161-494-00	CERAMIC	0.022uF		25V
C787	1-104-665-11	ELECT	100uF	20%	10V
C788	1-162-290-31	CERAMIC	470PF	10%	50V
C789	1-164-159-11	CERAMIC	0.1uF		50V
C790	1-164-159-11	CERAMIC	0.1uF		50V
C791	1-164-159-11	CERAMIC	0.1uF		50V
C792	1-164-159-11	CERAMIC	0.1uF		50V
C703A	1-162-282-31	CERAMIC	100PF	10%	50V
C703B	1-162-282-31	CERAMIC	100PF	10%	50V
C703C	1-162-282-31	CERAMIC	100PF	10%	50V
C746A	1-162-209-31	CERAMIC	27PF	5%	50V
		< CONNECTOR >			
CN731	1-779-553-11	CONNECTOR,FFC(LIF(NON-ZIF))16P			
* CN732	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN733	1-784-780-11	CONNECTOR, FFC 19P			
CN735	1-785-336-11	PIN, CONNECTOR(LIGHT ANGLE)10P			
		< DIODE >			
D730	8-719-991-33	DIODE 1SS133T-77			
D731	8-719-991-33	DIODE 1SS133T-77			
D732	8-719-991-33	DIODE 1SS133T-77			
D733	8-719-991-33	DIODE 1SS133T-77			
D734	8-719-991-33	DIODE 1SS133T-77			
D735	8-719-991-33	DIODE 1SS133T-77			
D736	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
IC731	8-759-498-93	IC LA9241M			
IC751	6-700-355-01	IC LC78622NE			
IC781	6-700-304-01	IC MM1469XH			
		< COIL >			
L701	1-410-509-11	INDUCTOR	10uH		
L702	1-410-509-11	INDUCTOR	10uH		
L703	1-410-521-11	INDUCTOR	100uH		
L704	1-410-509-11	INDUCTOR	10uH		
L705	1-410-509-11	INDUCTOR	10uH		
L733	1-408-080-00	INDUCTOR	100uH (RG20:AEP, UK)		
		< TRANSISTOR >			
Q731	8-729-116-57	TRANSISTOR	2SB1068TP-K		
Q771	8-729-119-78	TRANSISTOR	2SC2785TP-HFE		
Q772	8-729-119-78	TRANSISTOR	2SC2785TP-HFE		
Q773	8-729-119-76	TRANSISTOR	2SA1175TP-HFE		
Q774	8-729-119-76	TRANSISTOR	2SA1175TP-HFE		

Ref. No.	Part No.	Description			Remarks
Q775	8-729-119-78	TRANSISTOR	2SC2785TP-HFE		
		< RESISTOR >			
R704	1-249-393-11	CARBON	10	5%	1/4W F
R705	1-247-807-31	CARBON	100	5%	1/4W
R707	1-247-807-31	CARBON	100	5%	1/4W
R708	1-249-441-11	CARBON	100K	5%	1/4W
R709	1-249-427-11	CARBON	6.8K	5%	1/4W F
R710	1-249-421-11	CARBON	2.2K	5%	1/4W F
R714	1-249-439-11	CARBON	68K	5%	1/4W
R715	1-249-430-11	CARBON	12K	5%	1/4W
R717	1-249-439-11	CARBON	68K	5%	1/4W
R718	1-249-436-11	CARBON	39K	5%	1/4W
R719	1-247-843-11	CARBON	3.3K	5%	1/4W
R720	1-249-434-11	CARBON	27K	5%	1/4W
R721	1-249-414-11	CARBON	560	5%	1/4W F
R722	1-249-431-11	CARBON	15K	5%	1/4W
R724	1-249-433-11	CARBON	22K	5%	1/4W
R725	1-249-430-11	CARBON	12K	5%	1/4W
R727	1-249-430-11	CARBON	12K	5%	1/4W
R728	1-249-435-11	CARBON	33K	5%	1/4W
R729	1-249-419-11	CARBON	1.5K	5%	1/4W F
R731	1-249-434-11	CARBON	27K	5%	1/4W
R732	1-247-885-00	CARBON	180K	5%	1/4W
R733	1-249-431-11	CARBON	15K	5%	1/4W
R734	1-249-434-11	CARBON	27K	5%	1/4W
R735	1-249-435-11	CARBON	33K	5%	1/4W
R736	1-249-419-11	CARBON	1.5K	5%	1/4W F
R737	1-249-424-11	CARBON	3.9K	5%	1/4W F
R738	1-247-807-31	CARBON	100	5%	1/4W
R739	1-249-419-11	CARBON	1.5K	5%	1/4W F
R740	1-249-427-11	CARBON	6.8K	5%	1/4W F
R741	1-249-424-11	CARBON	3.9K	5%	1/4W F
R742	1-247-897-11	CARBON	560K	5%	1/4W
R743	1-247-897-11	CARBON	560K	5%	1/4W
R744	1-249-428-11	CARBON	8.2K	5%	1/4W F
R745	1-249-431-11	CARBON	15K	5%	1/4W
R746	1-249-411-11	CARBON	330	5%	1/4W
R747	1-249-433-11	CARBON	22K	5%	1/4W
R748	1-249-437-11	CARBON	47K	5%	1/4W
R749	1-249-415-11	CARBON	680	5%	1/4W F
R750	1-249-425-11	CARBON	4.7K	5%	1/4W F
R751	1-249-415-11	CARBON	680	5%	1/4W F
R752	1-249-434-11	CARBON	27K	5%	1/4W
R753	1-249-418-11	CARBON	1.2K	5%	1/4W F
R754	1-249-435-11	CARBON	33K	5%	1/4W
R755	1-249-442-11	CARBON	510	5%	1/4W
R756	1-247-903-00	CARBON	1M	5%	1/4W
R757	1-249-437-11	CARBON	47K	5%	1/4W
R758	1-249-417-11	CARBON	1K	5%	1/4W F
R759	1-249-417-11	CARBON	1K	5%	1/4W F
R760	1-247-807-31	CARBON	100	5%	1/4W
R761	1-249-417-11	CARBON	1K	5%	1/4W F
R762	1-249-417-11	CARBON	1K	5%	1/4W F
R763	1-249-417-11	CARBON	1K	5%	1/4W F
R764	1-249-417-11	CARBON	1K	5%	1/4W F
R765	1-249-417-11	CARBON	1K	5%	1/4W F
R766	1-247-807-31	CARBON	100	5%	1/4W

CD DRIVER MAIN

Ref. No.	Part No.	Description			Remarks
R771	1-249-421-11	CARBON	2.2K	5%	1/4W F
R772	1-249-421-11	CARBON	2.2K	5%	1/4W F
R773	1-249-429-11	CARBON	10K	5%	1/4W
R774	1-249-429-11	CARBON	10K	5%	1/4W
R775	1-249-429-11	CARBON	10K	5%	1/4W
R776	1-249-429-11	CARBON	10K	5%	1/4W
R777	1-249-421-11	CARBON	2.2K	5%	1/4W F
R778	1-249-421-11	CARBON	2.2K	5%	1/4W F
R781	1-249-434-11	CARBON	27K	5%	1/4W
R782	1-249-429-11	CARBON	10K	5%	1/4W
R784	1-247-807-31	CARBON	100	5%	1/4W
R785	1-247-889-00	CARBON	270K	5%	1/4W
R788	1-249-417-11	CARBON	1K	5%	1/4W F
R791	1-249-429-11	CARBON	10K	5%	1/4W
R792	1-249-429-11	CARBON	10K	5%	1/4W
R793	1-249-429-11	CARBON	10K	5%	1/4W
R794	1-249-429-11	CARBON	10K	5%	1/4W
R703A	1-247-807-31	CARBON	100	5%	1/4W
R703B	1-247-807-31	CARBON	100	5%	1/4W
R703C	1-247-807-31	CARBON	100	5%	1/4W
R706A	1-249-437-11	CARBON	47K	5%	1/4W
R706B	1-249-437-11	CARBON	47K	5%	1/4W
R706C	1-249-437-11	CARBON	47K	5%	1/4W
R706D	1-249-437-11	CARBON	47K	5%	1/4W
R706E	1-249-441-11	CARBON	100K	5%	1/4W
R706F	1-249-441-11	CARBON	100K	5%	1/4W
R745A	1-249-429-11	CARBON	10K	5%	1/4W
		< TEST PIN >			
* TP731	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
		< VIBRATOR >			
X701	1-579-280-11	VIBRATOR, CRYSTAL 16.9344MHz			
**********					
	1-675-912-14	DRIVER BOARD			
		**********			
		< CAPACITOR >			
C702	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
CN702	1-785-550-11	CONNECTOR, FFC/FPC 8P			
		< DIODE >			
D701	8-719-983-15	DIODE MTZJ-T-77-3.9A			
		< IC >			
IC701	8-759-598-69	IC BA6956AN			
		< RESISTOR >			
R701	1-249-411-11	CARBON	330	5%	1/4W
R702	1-249-401-11	CARBON	47	5%	1/4W F
**********					

Ref. No.	Part No.	Description			Remarks
	A-4440-407-A	MAIN BOARD, COMPLETE			
					(DX10/RG20:US, CND)
		**********			
	A-4440-486-A	MAIN BOARD, COMPLETE (RG20:AEP, UK)			
		**********			
	A-4440-488-A	MAIN BOARD, COMPLETE (RG30T)			
		**********			
	A-4440-490-A	MAIN BOARD, COMPLETE (RG4SR)			
		**********			
		< CAPACITOR >			
C101	1-162-306-11	CERAMIC	0.01uF	30%	16V
C102	1-162-306-11	CERAMIC	0.01uF	30%	16V
C104	1-162-306-11	CERAMIC	0.01uF	30%	16V
C105	1-162-306-11	CERAMIC	0.01uF	30%	16V
C106	1-162-306-11	CERAMIC	0.01uF	30%	16V
C107	1-126-947-11	ELECT	47uF	20%	16V
C108	1-126-960-11	ELECT	1uF	20%	50V
C109	1-162-306-11	CERAMIC	0.01uF	30%	16V
C110	1-162-306-11	CERAMIC	0.01uF	30%	16V
C111	1-162-306-11	CERAMIC	0.01uF	30%	16V
C112	1-130-487-00	MYLAR	0.022uF	5%	50V
					(RG20:AEP, UK)
C112	1-130-485-00	MYLAR	0.015uF	5%	50V
					(DX10/RG4SR/RG20:US, CND/RG30T)
C113	1-130-487-00	MYLAR	0.022uF	5%	50V
					(RG20:AEP, UK)
C113	1-130-485-00	MYLAR	0.015uF	5%	50V
					(DX10/RG4SR/RG20:US, CND/RG30T)
C114	1-126-957-11	ELECT	0.22uF	20%	50V
C115	1-127-884-21	CERAMIC	0.047uF	10%	50V
C116	1-126-965-11	ELECT	22uF	20%	50V
C117	1-162-290-31	CERAMIC	470PF	10%	50V
					(RG20:AEP, UK)
C117	1-162-282-31	CERAMIC	100PF	10%	50V
					(DX10/RG4SR/RG20:US, CND/RG30T)
C119	1-127-884-21	CERAMIC	0.047uF	10%	50V
C121	1-126-960-11	ELECT	1uF	20%	50V
C122	1-126-964-11	ELECT	10uF	20%	50V
C123	1-126-964-11	ELECT	10uF	20%	50V
C124	1-126-933-11	ELECT	100uF	20%	16V
C125	1-162-292-31	CERAMIC	680PF	10%	50V
					(RG20:AEP, UK)
C125	1-162-286-21	CERAMIC	220PF	10%	50V
					(DX10/RG4SR/RG20:US, CND/RG30T)
C126	1-162-306-11	CERAMIC	0.01uF	30%	16V
C127	1-162-306-11	CERAMIC	0.01uF	30%	16V
C128	1-126-963-11	ELECT	4.7uF	20%	50V
C129	1-126-963-11	ELECT	4.7uF	20%	50V
C130	1-162-286-21	CERAMIC	220PF	10%	50V
					(RG20:AEP, UK)
C133	1-126-961-11	ELECT	2.2uF	20%	50V
C134	1-126-961-11	ELECT	2.2uF	20%	50V
C136	1-162-194-31	CERAMIC	3.9PF	10%	50V
C138	1-126-947-11	ELECT	47uF	20%	16V
C139	1-162-306-11	CERAMIC	0.01uF	30%	16V
C140	1-126-959-11	ELECT	0.47uF	20%	50V
C141	1-162-306-11	CERAMIC	0.01uF	30%	16V
C142	1-128-801-11	CERAMIC	22PF	5%	50V
C143	1-128-803-11	CERAMIC	33PF	5%	50V

Ref. No.	Part No.	Description			Remarks
C144	1-162-211-31	CERAMIC	33PF	5%	50V (RG20:AEP, UK)
C145	1-162-286-31	CERAMIC	220PF	10%	50V
C146	1-162-286-31	CERAMIC	220PF	10%	50V
C147	1-126-947-11	ELECT	47uF	20%	16V
C148	1-162-286-31	CERAMIC	220PF	10%	50V
C149	1-162-306-11	CERAMIC	0.01uF	30%	16V
C150	1-126-961-11	ELECT	2.2uF	20%	50V
C151	1-126-947-11	ELECT	47uF	20%	16V
C152	1-162-306-11	CERAMIC	0.01uF	30%	16V
C153	1-162-294-31	CERAMIC	0.001uF	10%	50V
C154	1-162-294-31	CERAMIC	0.001uF	10%	50V
C155	1-162-306-11	CERAMIC	0.01uF	30%	16V
C157	1-162-306-11	CERAMIC	0.01uF	30%	16V
C201	1-162-292-31	CERAMIC	680PF	10%	50V
C202	1-162-292-31	CERAMIC	680PF	10%	50V
C203	1-162-292-31	CERAMIC	680PF	10%	50V
C204	1-162-292-31	CERAMIC	680PF	10%	50V
C205	1-162-286-31	CERAMIC	220PF	10%	50V
C206	1-162-286-31	CERAMIC	220PF	10%	50V
C207	1-162-286-31	CERAMIC	220PF	10%	50V
C208	1-162-286-31	CERAMIC	220PF	10%	50V
C209	1-126-967-11	ELECT	47uF	20%	50V
C210	1-126-967-11	ELECT	47uF	20%	50V
C211	1-130-486-00	MYLAR	0.018uF	10%	50V
C212	1-130-486-00	MYLAR	0.018uF	10%	50V
C213	1-126-960-11	ELECT	1uF	20%	50V
C214	1-126-960-11	ELECT	1uF	20%	50V
C215	1-127-870-31	CERAMIC	3300PF	10%	50V
C216	1-127-870-31	CERAMIC	3300PF	10%	50V
C217	1-126-947-11	ELECT	47uF	20%	16V
C218	1-104-661-91	ELECT	330uF	20%	16V
C219	1-126-962-11	ELECT	3.3uF	20%	50V
C221	1-126-962-11	ELECT	3.3uF	20%	50V
C222	1-126-962-11	ELECT	3.3uF	20%	50V
C223	1-162-290-31	CERAMIC	470PF	10%	50V
C224	1-162-290-31	CERAMIC	470PF	10%	50V
C225	1-127-866-11	CERAMIC	1500PF	10%	50V
C226	1-127-866-11	CERAMIC	1500PF	10%	50V
C227	1-162-286-31	CERAMIC	220PF	10%	50V
C228	1-162-286-31	CERAMIC	220PF	10%	50V
C229	1-126-933-11	ELECT	100uF	20%	16V
C230	1-126-933-11	ELECT	100uF	20%	16V
C231	1-124-252-00	ELECT	0.33uF	20%	50V
C232	1-124-252-00	ELECT	0.33uF	20%	50V
C233	1-162-294-31	CERAMIC	0.001uF	10%	50V
C234	1-162-294-31	CERAMIC	0.001uF	10%	50V
C235	1-130-491-00	MYLAR	0.047uF	5%	50V
C236	1-130-491-00	MYLAR	0.047uF	5%	50V
C237	1-161-494-00	CERAMIC	0.022uF		25V
C238	1-126-961-11	ELECT	2.2uF	20%	50V
C239	1-130-485-00	MYLAR	0.015uF	5%	50V
C240	1-126-967-11	ELECT	47uF	20%	50V
C241	1-130-479-00	MYLAR	0.0047uF	5%	50V
C242	1-130-485-00	MYLAR	0.015uF	5%	50V
C243	1-130-485-00	MYLAR	0.015uF	5%	50V

Ref. No.	Part No.	Description			Remarks
C244	1-126-956-11	ELECT	0.1uF	20%	50V
C313	1-127-868-31	CERAMIC	2200PF	10%	50V
C314	1-127-868-31	CERAMIC	2200PF	10%	50V
C315	1-127-868-31	CERAMIC	2200PF	10%	50V
C316	1-136-169-00	FILM	0.22uF	5%	50V
C317	1-136-169-00	FILM	0.22uF	5%	50V
C318	1-136-169-00	FILM	0.22uF	5%	50V
C319	1-126-934-11	ELECT	220uF	20%	16V
C320	1-136-169-00	FILM	0.22uF	5%	50V
C321	1-126-947-11	ELECT	47uF	20%	16V
C323	1-126-947-11	ELECT	47uF	20%	16V
C324	1-126-961-11	ELECT	2.2uF	20%	50V
C325	1-126-961-11	ELECT	2.2uF	20%	50V
C326	1-162-199-31	CERAMIC	10PF	5%	50V
C327	1-162-199-31	CERAMIC	10PF	5%	50V
C328	1-126-933-11	ELECT	100uF	20%	16V
C329	1-126-961-11	ELECT	2.2uF	20%	50V
C330	1-126-961-11	ELECT	2.2uF	20%	50V
C331	1-109-953-11	ELECT	2.2uF	20%	50V
C332	1-109-953-11	ELECT	2.2uF	20%	50V
C333	1-126-961-11	ELECT	2.2uF	20%	50V
C334	1-126-961-11	ELECT	2.2uF	20%	50V
C335	1-126-960-11	ELECT	1uF	20%	50V
C336	1-126-960-11	ELECT	1uF	20%	50V
C337	1-126-960-11	ELECT	1uF	20%	50V
C338	1-126-960-11	ELECT	1uF	20%	50V
C339	1-126-964-11	ELECT	10uF	20%	50V
C340	1-126-964-11	ELECT	10uF	20%	50V
C341	1-161-494-00	CERAMIC	0.022uF		25V
C342	1-162-215-31	CERAMIC	47PF	5%	50V
C343	1-126-933-11	ELECT	100uF	20%	16V
C344	1-126-960-11	ELECT	1uF	20%	50V
C345	1-162-215-31	CERAMIC	47PF	5%	50V
C346	1-126-956-11	ELECT	0.1uF	20%	50V
C347	1-126-960-11	ELECT	1uF	20%	50V
C348	1-126-964-11	ELECT	10uF	20%	50V
C349	1-126-947-11	ELECT	47uF	20%	16V
C350	1-107-717-11	ELECT	47uF	20%	50V
C351	1-107-721-11	ELECT	4.7uF	20%	100V
C352	1-107-721-11	ELECT	4.7uF	20%	100V
C353	1-136-165-00	FILM	0.1uF	5%	50V (RG20:AEP, UK)
C354	1-136-165-00	FILM	0.1uF	5%	50V (RG20:AEP, UK)
C355	1-136-165-00	FILM	0.1uF	5%	50V (RG20:AEP, UK)
C356	1-136-165-00	FILM	0.1uF	5%	50V (RG20:AEP, UK)
C357	1-126-961-11	ELECT	2.2uF	20%	50V
C358	1-126-961-11	ELECT	2.2uF	20%	50V
C359	1-126-935-11	ELECT	470uF	20%	16V
C360	1-126-964-11	ELECT	10uF	20%	50V
C361	1-126-933-11	ELECT	100uF	20%	16V
C362	1-107-698-11	ELECT	10uF	20%	25V
C363	1-126-956-11	ELECT	0.1uF	20%	50V
C364	1-126-956-11	ELECT	0.1uF	20%	50V
C366	1-126-947-11	ELECT	47uF	20%	16V
C367	1-126-947-11	ELECT	47uF	20%	16V
C369	1-162-294-31	CERAMIC	0.001uF	10%	50V

MAIN

Ref. No.	Part No.	Description			Remarks
C370	1-162-294-31	CERAMIC	0.001uF	10%	50V
C371	1-164-159-11	CERAMIC	0.1uF		50V
C372	1-164-159-11	CERAMIC	0.1uF		50V
C801	1-136-165-00	FILM	0.1uF	5%	50V
C802	1-136-165-00	FILM	0.1uF	5%	50V
C805	1-126-768-11	ELECT	2200uF	20%	16V
C806	1-126-943-11	ELECT	2200uF	20%	25V
C807	1-126-964-11	ELECT	10uF	20%	50V
C808	1-126-916-11	ELECT	1000uF	20%	6.3V
C809	1-126-964-11	ELECT	10uF	20%	50V
C810	1-126-933-11	ELECT	100uF	20%	16V
C811	1-126-964-11	ELECT	10uF	20%	50V
C812	1-161-494-00	CERAMIC	0.022uF		25V
C813	1-126-916-11	ELECT	1000uF	20%	6.3V
C814	1-126-964-11	ELECT	10uF	20%	50V
C815	1-126-933-11	ELECT	100uF	20%	16V
C819	1-161-494-00	CERAMIC	0.022uF		25V
C827	1-130-483-00	MYLAR	0.01uF	5%	50V
C828	1-130-483-00	MYLAR	0.01uF	5%	50V
C851	1-126-963-11	ELECT	4.7uF	20%	50V (RG4SR/RG30T)
		< FILTER >			
CF101	1-579-185-21	FILTER, CERAMIC (RG20:AEP, UK)			
CF101	1-760-023-11	FILTER, CERAMIC (DX10/RG4SR/RG20:US, CND/RG30T)			
CF102	1-579-185-21	FILTER, CERAMIC (RG20:AEP, UK)			
CF102	1-760-023-11	FILTER, CERAMIC (DX10/RG4SR/RG20:US, CND/RG30T)			
		< CONNECTOR >			
* CN201	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CN202	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
* CN203	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
* CN305	1-770-392-11	PIN, CONNECTOR (PC BOARD) 8P			
CN402	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P			
CN403	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P			
CN603	1-793-766-11	CONNECTOR, BOARD TO BOARD 30P			
* CN704	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CN851	1-564-506-11	PLUG, CONNECTOR 3P (RG4SR/RG30T)			
		< CRYSTAL VIBRATOR >			
CX101	1-760-549-31	VIBRATOR, CRYSTAL 4.5MHz			
		< DIODE >			
D103	8-719-109-97	DIODE MTZJ-6.8B			
D105	8-719-991-33	DIODE 1SS133T-77			
D111	8-719-991-33	DIODE 1SS133T-77			
D112	8-719-991-33	DIODE 1SS133T-77			
D202	8-719-991-33	DIODE 1SS133T-77			
D203	8-719-991-33	DIODE 1SS133T-77			
D204	8-719-991-33	DIODE 1SS133T-77			
D205	8-719-991-33	DIODE 1SS133T-77			
D304	8-719-929-15	DIODE MTZJ-9.1B			
D309	8-719-991-33	DIODE 1SS133T-77			
D310	8-719-991-33	DIODE 1SS133T-77			
D311	8-719-991-33	DIODE 1SS133T-77			
D312	8-719-991-33	DIODE 1SS133T-77			
D313	8-719-991-33	DIODE 1SS133T-77			
D315	8-719-200-82	DIODE 11ES2-TB5			

Ref. No.	Part No.	Description	Remarks
D316	8-719-200-82	DIODE 11ES2-TB5	
D801	8-719-200-82	DIODE 11ES2-TB5	
D802	8-719-200-82	DIODE 11ES2-TB5	
D803	8-719-200-82	DIODE 11ES2-TB5	
D804	8-719-200-82	DIODE 11ES2-TB5	
D809	8-719-200-82	DIODE 11ES2-TB5	
D810	8-719-200-82	DIODE 11ES2-TB5	
D811	8-719-991-33	DIODE 1SS133T-77	
D812	8-719-200-82	DIODE 11ES2-TB5	
D813	8-719-200-82	DIODE 11ES2-TB5	
D814	8-719-200-82	DIODE 11ES2-TB5	
D815	8-719-200-82	DIODE 11ES2-TB5	
D851	8-719-991-33	DIODE 1SS133T-77	(RG4SR/RG30T)
D852	8-719-991-33	DIODE 1SS133T-77	(RG4SR/RG30T)
		< FRONT END >	
FE101	1-693-477-11	FRONT END (3 GANGS)	(DX10/RG4SR/RG20:US, CND/RG30T)
FE103	1-693-496-11	FRONT END (4 GANG)	(RG20:AEP, UK)
		< TERMINAL >	
* GND1	1-537-738-21	TERMINAL, EARTH	
		< IC >	
IC101	8-759-652-00	IC BA1450	
IC102	8-759-288-54	IC LC72130	
IC201	8-759-242-58	IC TA8189N	
IC301	6-700-305-01	IC BD3871FS	
IC302	8-759-505-55	IC NJM4558L	
IC801	8-759-701-59	IC M5F7809L	
IC802	8-759-088-08	IC uPC7812AHF	
IC803	8-759-039-69	IC uPC7805AHF	
IC804	8-759-039-69	IC uPC7805AHF	
		< IFT >	
IFT101	1-435-295-11	TRANSFORMER, IF	
		< TERMINAL BOARD >	
JK101	1-694-556-21	TERMINAL BOARD (ANT.PAL)(ANTENNA)	(RG20:AEP, UK)
JK101	1-694-555-11	TERMINAL BOARD (4P)(ANTENNA)	(DX10/RG4SR/RG20:US, CND/RG30T)
JK310	1-694-635-11	TERMINAL BOARD (4P)(SPEAKER)	
JK311	1-694-635-11	TERMINAL BOARD (4P)	(SURROUND SPK OUTPUT) (RG4SR)
		< COIL >	
L101	1-414-186-31	INDUCTOR 33uH	(RG20:AEP, UK)
L102	1-414-177-11	INDUCTOR 1uH	(RG20:AEP, UK)
L251	1-424-849-11	COIL, OSCILLATION (BIAS)	
L351	1-420-872-00	COIL, AIR-CORE	(RG20:AEP, UK)
L352	1-420-872-00	COIL, AIR-CORE	(RG20:AEP, UK)
		< TRANSISTOR >	
Q101	8-729-015-41	TRANSISTOR 2SC1675-T1	
Q102	8-729-422-57	TRANSISTOR BN1A4M-TP	
Q105	8-729-141-30	TRANSISTOR 2SC3623ATP-LK	
Q106	8-729-141-30	TRANSISTOR 2SC3623ATP-LK	
Q201	8-729-119-78	TRANSISTOR 2SC2785TP-HFE	

Ref. No.	Part No.	Description				Remarks
Q202	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q203	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q204	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q205	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q206	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q207	8-729-141-30	TRANSISTOR	2SC3623ATP-LK			
Q208	8-729-141-30	TRANSISTOR	2SC3623ATP-LK			
Q209	8-729-140-04	TRANSISTOR	2SB1116-TP-LK			
Q210	8-729-140-04	TRANSISTOR	2SB1116-TP-LK			
Q211	8-729-140-04	TRANSISTOR	2SB1116-TP-LK			
Q212	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q213	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q214	8-729-142-46	TRANSISTOR	2SC2001TP-LK			
Q215	8-729-141-30	TRANSISTOR	2SC3623ATP-LK			
Q216	8-729-141-30	TRANSISTOR	2SC3623ATP-LK			
Q303	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q304	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q305	8-729-900-63	TRANSISTOR	BN1F4M-TP			
Q306	8-729-141-30	TRANSISTOR	2SC3623ATP-LK			
Q307	8-729-141-30	TRANSISTOR	2SC3623ATP-LK			
Q308	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q309	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q311	8-729-119-76	TRANSISTOR	2SA1175TP-HFE			
Q312	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q313	8-729-141-30	TRANSISTOR	2SC3623ATP-LK			
Q314	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q315	8-729-900-80	TRANSISTOR	BA1A4M-TP			
Q316	8-729-141-30	TRANSISTOR	2SC3623ATP-LK			
Q320	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q321	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			
Q801	8-729-900-80	TRANSISTOR	BA1A4M-TP			
Q802	8-729-049-79	TRANSISTOR	RT1P137S-TP			
Q803	8-729-900-63	TRANSISTOR	BN1F4M-TP			
Q804	8-729-900-80	TRANSISTOR	BA1A4M-TP			
Q850	8-729-140-04	TRANSISTOR	2SB1116-TP-LK			(RG4SR/RG30T)
Q851	8-729-119-78	TRANSISTOR	2SC2785TP-HFE			(RG4SR/RG30T)
		< RESISTOR >				
R101	1-249-407-11	CARBON	150	5%	1/4W	F
R102	1-249-415-11	CARBON	680	5%	1/4W	F
R103	1-249-415-11	CARBON	680	5%	1/4W	F
R104	1-249-411-11	CARBON	330	5%	1/4W	
R105	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R106	1-249-401-11	CARBON	47	5%	1/4W	F
R107	1-249-401-11	CARBON	47	5%	1/4W	F
R108	1-249-409-11	CARBON	220	5%	1/4W	F
R109	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R110	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R111	1-249-429-11	CARBON	10K	5%	1/4W	
R112	1-249-430-11	CARBON	12K	5%	1/4W	
R113	1-249-429-11	CARBON	10K	5%	1/4W	
R114	1-249-429-11	CARBON	10K	5%	1/4W	
R115	1-249-429-11	CARBON	10K	5%	1/4W	

Ref. No.	Part No.	Description				Remarks
R116	1-249-441-11	CARBON	100K	5%	1/4W	
R117	1-247-807-31	CARBON	100	5%	1/4W	
R118	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R119	1-249-429-11	CARBON	10K	5%	1/4W	
R120	1-249-429-11	CARBON	10K	5%	1/4W	
R121	1-249-415-11	CARBON	680	5%	1/4W	F (RG20:AEP, UK)
R122	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R123	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R128	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R129	1-247-807-31	CARBON	100	5%	1/4W	
R130	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R131	1-247-807-31	CARBON	100	5%	1/4W	
R132	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R133	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R134	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R135	1-247-843-11	CARBON	3.3K	5%	1/4W	
R136	1-249-431-11	CARBON	15K	5%	1/4W	
R137	1-249-429-11	CARBON	10K	5%	1/4W	
R138	1-249-429-11	CARBON	10K	5%	1/4W	
R139	1-249-417-11	CARBON	1K	5%	1/4W	F
R140	1-249-429-11	CARBON	10K	5%	1/4W	
R141	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R142	1-249-429-11	CARBON	10K	5%	1/4W	
R143	1-249-431-11	CARBON	15K	5%	1/4W	
R201	1-249-393-11	CARBON	10	5%	1/4W	F
R202	1-249-393-11	CARBON	10	5%	1/4W	F
R203	1-249-393-11	CARBON	10	5%	1/4W	F
R204	1-249-393-11	CARBON	10	5%	1/4W	F
R205	1-249-401-11	CARBON	47	5%	1/4W	F
R206	1-249-401-11	CARBON	47	5%	1/4W	F
R207	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R208	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R209	1-247-889-00	CARBON	270K	5%	1/4W	
R210	1-247-889-00	CARBON	270K	5%	1/4W	
R211	1-247-891-00	CARBON	330K	5%	1/4W	
R212	1-247-891-00	CARBON	330K	5%	1/4W	
R213	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R214	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R215	1-247-891-00	CARBON	330K	5%	1/4W	
R216	1-247-891-00	CARBON	330K	5%	1/4W	
R217	1-249-429-11	CARBON	10K	5%	1/4W	
R219	1-249-437-11	CARBON	47K	5%	1/4W	
R220	1-249-433-11	CARBON	22K	5%	1/4W	
R221	1-247-881-00	CARBON	120K	5%	1/4W	
R222	1-247-881-00	CARBON	120K	5%	1/4W	
R223	1-247-885-00	CARBON	180K	5%	1/4W	
R224	1-247-885-00	CARBON	180K	5%	1/4W	
R225	1-249-433-11	CARBON	22K	5%	1/4W	
R226	1-249-433-11	CARBON	22K	5%	1/4W	
R227	1-247-881-00	CARBON	120K	5%	1/4W	
R228	1-247-881-00	CARBON	120K	5%	1/4W	
R229	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R230	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R231	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R232	1-249-421-11	CARBON	2.2K	5%	1/4W	F

MAIN

Ref. No.	Part No.	Description			Remarks
R233	1-249-409-11	CARBON	220	5%	1/4W F
R234	1-247-843-11	CARBON	3.3K	5%	1/4W
R235	1-247-843-11	CARBON	3.3K	5%	1/4W
R236	1-249-425-11	CARBON	4.7K	5%	1/4W F
R237	1-249-425-11	CARBON	4.7K	5%	1/4W F
R238	1-249-429-11	CARBON	10K	5%	1/4W
R239	1-249-425-11	CARBON	4.7K	5%	1/4W F
R240	1-249-425-11	CARBON	4.7K	5%	1/4W F
R241	1-249-421-11	CARBON	2.2K	5%	1/4W F
R242	1-249-434-11	CARBON	27K	5%	1/4W
R244	1-249-430-11	CARBON	12K	5%	1/4W
R245	1-249-429-11	CARBON	10K	5%	1/4W
R246	1-249-421-11	CARBON	2.2K	5%	1/4W F
R247	1-249-425-11	CARBON	4.7K	5%	1/4W F
R248	1-249-425-11	CARBON	4.7K	5%	1/4W F
R249	1-249-413-11	CARBON	470	5%	1/4W F
R250	1-249-393-11	CARBON	10	5%	1/4W F
R251	1-249-434-11	CARBON	27K	5%	1/4W
R252	1-249-381-11	CARBON	1	5%	1/4W F
R253	1-249-425-11	CARBON	4.7K	5%	1/4W F
R253	1-249-437-11	CARBON	47K	5%	1/4W
R254	1-249-425-11	CARBON	4.7K	5%	1/4W F
R307	1-249-441-11	CARBON	100K	5%	1/4W
R308	1-249-441-11	CARBON	100K	5%	1/4W
R314	1-249-426-11	CARBON	5.6K	5%	1/4W
R315	1-249-426-11	CARBON	5.6K	5%	1/4W
R316	1-247-893-11	CARBON	390K	5%	1/4W
R317	1-247-893-11	CARBON	390K	5%	1/4W
R323	1-249-437-11	CARBON	47K	5%	1/4W
R325	1-249-437-11	CARBON	47K	5%	1/4W
R327	1-249-413-11	CARBON	470	5%	1/4W F
R329	1-249-437-11	CARBON	47K	5%	1/4W
R330	1-249-437-11	CARBON	47K	5%	1/4W
R331	1-249-429-11	CARBON	10K	5%	1/4W
R332	1-249-429-11	CARBON	10K	5%	1/4W
R335	1-249-429-11	CARBON	10K	5%	1/4W
R336	1-249-429-11	CARBON	10K	5%	1/4W
R337	1-259-880-11	CARBON	2.2M	5%	1/4W
R338	1-259-880-11	CARBON	2.2M	5%	1/4W
R339	1-249-413-11	CARBON	470	5%	1/4W F
R340	1-249-437-11	CARBON	47K	5%	1/4W
R341	1-249-437-11	CARBON	47K	5%	1/4W
R342	1-247-807-31	CARBON	100	5%	1/4W
R343	1-249-426-11	CARBON	5.6K	5%	1/4W
R344	1-249-426-11	CARBON	5.6K	5%	1/4W
R345	1-249-425-11	CARBON	4.7K	5%	1/4W F
R346	1-249-425-11	CARBON	4.7K	5%	1/4W F
R347	1-249-429-11	CARBON	10K	5%	1/4W
R348	1-249-429-11	CARBON	10K	5%	1/4W
R349	1-249-429-11	CARBON	10K	5%	1/4W
R350	1-249-429-11	CARBON	10K	5%	1/4W
R351	1-249-417-11	CARBON	1K	5%	1/4W F
R352	1-249-426-11	CARBON	5.6K	5%	1/4W
R353	1-249-417-11	CARBON	1K	5%	1/4W F
R354	1-249-417-11	CARBON	1K	5%	1/4W F

Ref. No.	Part No.	Description			Remarks
R355	1-249-437-11	CARBON	47K	5%	1/4W
R356	1-249-438-11	CARBON	56K	5%	1/4W
R357	1-260-076-11	CARBON	10	5%	1/2W
R358	1-260-076-11	CARBON	10	5%	1/2W
R359	1-249-429-11	CARBON	10K	5%	1/4W
R360	1-249-433-11	CARBON	22K	5%	1/4W
R361	1-249-425-11	CARBON	4.7K	5%	1/4W F
R362	1-249-433-11	CARBON	22K	5%	1/4W
R363	1-249-426-11	CARBON	5.6K	5%	1/4W
R364	1-249-429-11	CARBON	10K	5%	1/4W
R365	1-215-891-11	METAL OXIDE	680	5%	2W
R366	1-215-891-11	METAL OXIDE	680	5%	2W
R367	1-249-437-11	CARBON	47K	5%	1/4W
R368	1-249-441-11	CARBON	100K	5%	1/4W
R369	1-249-435-11	CARBON	33K	5%	1/4W
R370	1-249-429-11	CARBON	10K	5%	1/4W
R371	1-247-885-00	CARBON	180K	5%	1/4W
R372	1-247-899-11	CARBON	680K	5%	1/4W
R373	1-249-429-11	CARBON	10K	5%	1/4W
R374	1-249-409-11	CARBON	220	5%	1/4W F
R375	1-249-411-11	CARBON	330	5%	1/4W
R376	1-247-885-00	CARBON	180K	5%	1/4W
R377	1-247-899-11	CARBON	680K	5%	1/4W
R378	1-249-411-11	CARBON	330	5%	1/4W
R379	1-249-429-11	CARBON	10K	5%	1/4W
R380	1-249-441-11	CARBON	100K	5%	1/4W
R381	1-249-429-11	CARBON	10K	5%	1/4W
R382	1-249-425-11	CARBON	4.7K	5%	1/4W F
R383	1-249-425-11	CARBON	4.7K	5%	1/4W F
R384	1-249-441-11	CARBON	100K	5%	1/4W
R385	1-249-417-11	CARBON	1K	5%	1/4W F
R386	1-260-076-11	CARBON	10	5%	1/2W
R387	1-260-076-11	CARBON	10	5%	1/2W
R388	1-249-431-11	CARBON	15K	5%	1/4W
R389	1-249-437-11	CARBON	47K	5%	1/4W
R390	1-249-437-11	CARBON	47K	5%	1/4W
R391	1-249-441-11	CARBON	100K	5%	1/4W
R392	1-249-402-11	CARBON	56	5%	1/4W F
R393	1-249-402-11	CARBON	56	5%	1/4W F
R394	1-249-441-11	CARBON	100K	5%	1/4W
R396	1-249-429-11	CARBON	10K	5%	1/4W
R397	1-249-429-11	CARBON	10K	5%	1/4W
R398	1-249-421-11	CARBON	2.2K	5%	1/4W F
R399	1-249-421-11	CARBON	2.2K	5%	1/4W F
R811	1-249-421-11	CARBON	2.2K	5%	1/4W F (RG4SR/RG30T)
R812	1-249-425-11	CARBON	4.7K	5%	1/4W F (RG4SR/RG30T)
R813	1-249-437-11	CARBON	47K	5%	1/4W (RG4SR/RG30T)
R814	1-249-437-11	CARBON	47K	5%	1/4W (RG4SR/RG30T)
R815	1-249-437-11	CARBON	47K	5%	1/4W (RG4SR/RG30T)
R854	1-247-807-31	CARBON	100	5%	1/4W (RG4SR/RG30T)
R205A	1-249-409-11	CARBON	220	5%	1/4W F
R206A	1-249-409-11	CARBON	220	5%	1/4W F

Ref. No.	Part No.	Description			Remarks
		< COMPOSITION CIRCUIT BLOCK >			
RB101	1-234-457-11	ENCAPSULATED COMPONENT			
		< RELAY >			
RL1	1-755-373-11	RELAY			
		< VARIABLE RESISTOR >			
RV101	1-241-765-11	RES, ADJ, CARBON 22K			
		< TRANSFORMER >			
T101	1-435-195-31	TRANSFORMER, DISCRIMINATOR			
T102	1-234-477-11	ENCAPSULATED COMPONENT (RG20:AEP, UK)			
**********					
	1-675-910-14	MOTOR BOARD			
		**********			
		< CAPACITOR >			
C721	1-162-306-11	CERAMIC	0.01uF	30%	16V
		< CONNECTOR >			
CN721	1-770-516-31	CONNECTOR, FFC 8P			
CN722	1-785-330-11	PIN, CONNECTOR (LIGHT ANGLE)4P			
		< SWITCH >			
S701	1-771-822-11	SWITCH, LEVER (SLIDE)(OPEN/CLOSE SW)			
**********					
	A-4726-509-A	PANEL BOARD, COMPLETE (RG20:US, CND)			
		**********			
	A-4726-769-A	PANEL BOARD, COMPLETE (RG20:AEP, UK)			
		**********			
	A-4726-776-A	PANEL BOARD, COMPLETE (RG30T)			
		**********			
	A-4726-780-A	PANEL BOARD, COMPLETE (RG4SR)			
		**********			
	A-4726-920-A	PANEL BOARD, COMPLETE (DX10:AUS)			
		**********			
	A-4726-923-A	PANEL BOARD, COMPLETE (DX10:MY, SP, TW, E3)			
		**********			
	A-4726-926-A	PANEL BOARD, COMPLETE (DX10:MX, AR, E2, E51)			
		**********			
	1-791-897-11	WIRE (FLAT TYPE) (19 CORE)			
	1-823-058-11	WIRE (FLAT TYPE) (17 CORE)			
	4-234-712-01	FL HOLDER			
		< CAPACITOR >			
C601	1-126-916-11	ELECT	1000uF	20%	6.3V
C602	1-161-494-00	CERAMIC	0.022uF		25V
C603	1-104-665-11	ELECT	100uF	20%	10V
C604	1-161-494-00	CERAMIC	0.022uF		25V
C605	1-126-947-11	ELECT	47uF	20%	10V
C606	1-126-964-11	ELECT	10uF	20%	50V
C607	1-161-494-00	CERAMIC	0.022uF		25V
C608	1-126-961-11	ELECT	2.2uF	20%	50V
C609	1-126-960-11	ELECT	1uF	20%	50V
C610	1-164-159-11	CERAMIC	0.1uF		50V

Ref. No.	Part No.	Description			Remarks
C611	1-126-947-11	ELECT	47uF	20%	10V
C612	1-126-957-11	ELECT	0.22uF	20%	50V
C613	1-126-957-11	ELECT	0.22uF	20%	50V
C614	1-128-801-11	CERAMIC	22PF	5%	50V
C615	1-128-802-11	CERAMIC	27PF	5%	50V
C616	1-161-494-00	CERAMIC	0.022uF		25V
C617	1-126-964-11	ELECT	10uF	20%	50V
C618	1-162-286-31	CERAMIC	220PF	10%	50V
C619	1-162-286-31	CERAMIC	220PF	10%	50V
C620	1-162-286-31	CERAMIC	220PF	10%	50V
C621	1-126-964-11	ELECT	10uF	20%	50V
C622	1-162-294-31	CERAMIC	0.001uF	10%	50V
C623	1-110-671-31	CERAMIC	47000PF		50V
C624	1-110-671-31	CERAMIC	47000PF		50V
C625	1-110-671-31	CERAMIC	47000PF		50V
C626	1-110-671-31	CERAMIC	47000PF		50V
C627	1-162-294-31	CERAMIC	0.001uF	10%	50V
C628	1-162-294-31	CERAMIC	0.001uF	10%	50V
C629	1-164-159-11	CERAMIC	0.1uF		50V
C630	1-162-282-31	CERAMIC	100PF	10%	50V
C631	1-162-282-31	CERAMIC	100PF	10%	50V
C632	1-162-282-31	CERAMIC	100PF	10%	50V
C633	1-162-282-31	CERAMIC	100PF	10%	50V
C634	1-162-282-31	CERAMIC	100PF	10%	50V
C635	1-162-282-31	CERAMIC	100PF	10%	50V
C636	1-162-306-11	CERAMIC	0.01uF	30%	16V
C637	1-162-306-11	CERAMIC	0.01uF	30%	16V
C638	1-162-294-31	CERAMIC	0.001uF	10%	50V
C639	1-162-294-31	CERAMIC	0.001uF	10%	50V
C640	1-164-159-11	CERAMIC	0.1uF		50V
C641	1-164-159-11	CERAMIC	0.1uF		50V
C644	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CN601	1-784-739-11	CONNECTOR, FFC 17P			
CN602	1-784-741-11	CONNECTOR, FFC 19P			
CN603	1-793-767-11	CONNECTOR, BOARD TO BOARD 30P			
CN604	1-770-401-11	HOUSING, CONNECTOR (PC BOARD)8P			
		< DIODE >			
D601	8-719-200-82	DIODE 11ES2-NTA1B			
D602	8-719-200-82	DIODE 11ES2-NTA1B			
D603	8-719-991-33	DIODE 1SS133T-77			
D604	8-719-991-33	DIODE 1SS133T-77			
D605	8-719-991-33	DIODE 1SS133T-77			
D606	8-719-991-33	DIODE 1SS133T-77			
D607	8-719-991-33	DIODE 1SS133T-77			
D608	8-719-991-33	DIODE 1SS133T-77			
D609	8-719-991-33	DIODE 1SS133T-77			
D610	8-719-991-33	DIODE 1SS133T-77			
D611	8-719-991-33	DIODE 1SS133T-77			
D612	8-719-991-33	DIODE 1SS133T-77 (DX10:AUS/RG4SR/RG20:US, CND/RG30T)			
D613	8-719-991-33	DIODE 1SS133T-77 (RG4SR/RG20:US, CND/RG30T)			
D614	8-719-991-33	DIODE 1SS133T-77 (DX10:MX, AR, E2, E51)			
D615	8-719-991-33	DIODE 1SS133T-77 (RG4SR/RG20/RG30T)			
D616	8-719-991-33	DIODE 1SS133T-77 (RG4SR/RG30T)			
D617	8-719-991-33	DIODE 1SS133T-77 (RG4SR)			

PANEL

Ref. No.	Part No.	Description	Remarks
		< FERRITE BEAD >	
FB601	1-412-473-41	INDUCTOR 0uH	
		< FLUORESCENT INDICATOR >	
FLD601	1-518-730-11	TUBE, FLUORESCENT INDICATOR	
		< IC >	
IC601	6-800-240-02	IC LC866540A-5V62	
IC602	8-759-355-22	IC BU2114F-E2	
		< JACK >	
JK601	1-691-293-21	JACK (PHONES)	
JK603	1-815-684-11	JACK, PIN 3P (GAME INPUT)	
		< COIL >	
L602	1-414-187-11	INDUCTOR 47uH	
		< LED >	
LED601	8-719-084-69	DIODE LTL-77HKETNN (POWER)	
LED602	8-719-084-19	DIODE LTL77HKYTNN (CD)	
LED603	8-719-084-19	DIODE LTL77HKYTNN (CD)	
LED604	8-719-084-19	DIODE LTL77HKYTNN (TUNER/BAND)	
LED605	8-719-084-19	DIODE LTL77HKYTNN (TUNER/BAND)	
LED606	8-719-084-19	DIODE LTL77HKYTNN (TAPE A/B)	
LED607	8-719-084-19	DIODE LTL77HKYTNN (TAPE A/B)	
LED608	8-719-084-19	DIODE LTL77HKYTNN (GAME)	
LED609	8-719-084-19	DIODE LTL77HKYTNN (GAME)	
		< TRANSISTOR >	
Q601	8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
Q602	8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
Q603	8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
Q604	8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
Q605	8-729-119-78	TRANSISTOR 2SC2785TP-HFE	
Q606	8-729-140-04	TRANSISTOR 2SB1116-TP-LK	
Q607	8-729-140-04	TRANSISTOR 2SB1116-TP-LK	
Q608	8-729-140-04	TRANSISTOR 2SB1116-TP-LK	
Q651	8-729-900-80	TRANSISTOR BA1A4M-TP	
		< RESISTOR >	
R601	1-249-437-11	CARBON 47K 5% 1/4W	
R603	1-249-417-11	CARBON 1K 5% 1/4W	F
R604	1-249-437-11	CARBON 47K 5% 1/4W	
R605	1-249-417-11	CARBON 1K 5% 1/4W	F
R606	1-249-437-11	CARBON 47K 5% 1/4W	
R607	1-249-401-11	CARBON 47 5% 1/4W	F
R609	1-247-887-00	CARBON 220K 5% 1/4W	
R610	1-247-887-00	CARBON 220K 5% 1/4W	
R612	1-249-415-11	CARBON 680 5% 1/4W	F
R614	1-249-401-11	CARBON 47 5% 1/4W	F
R615	1-249-417-11	CARBON 1K 5% 1/4W	F
R617	1-249-417-11	CARBON 1K 5% 1/4W	F
R618	1-249-417-11	CARBON 1K 5% 1/4W	F
R619	1-249-417-11	CARBON 1K 5% 1/4W	F
R620	1-249-429-11	CARBON 10K 5% 1/4W	

Ref. No.	Part No.	Description	Remarks
R621	1-247-807-31	CARBON 100 5% 1/4W	
R622	1-247-807-31	CARBON 100 5% 1/4W	
R623	1-247-807-31	CARBON 100 5% 1/4W	
R625	1-249-417-11	CARBON 1K 5% 1/4W	F
R626	1-249-417-11	CARBON 1K 5% 1/4W	F
R627	1-249-417-11	CARBON 1K 5% 1/4W	F
R628	1-249-417-11	CARBON 1K 5% 1/4W	F
R629	1-249-417-11	CARBON 1K 5% 1/4W	F
R630	1-247-807-31	CARBON 100 5% 1/4W	
R631	1-247-807-31	CARBON 100 5% 1/4W	
R632	1-247-807-31	CARBON 100 5% 1/4W	
R633	1-247-807-31	CARBON 100 5% 1/4W	
R634	1-247-807-31	CARBON 100 5% 1/4W	
R635	1-247-807-31	CARBON 100 5% 1/4W	
R636	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R637	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R638	1-249-415-11	CARBON 680 5% 1/4W	F
R639	1-249-417-11	CARBON 1K 5% 1/4W	F
R640	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R641	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R642	1-249-415-11	CARBON 680 5% 1/4W	F
R643	1-249-417-11	CARBON 1K 5% 1/4W	F
R644	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R645	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R646	1-249-415-11	CARBON 680 5% 1/4W	F
R647	1-249-417-11	CARBON 1K 5% 1/4W	F
R648	1-249-429-11	CARBON 10K 5% 1/4W	
R649	1-249-429-11	CARBON 10K 5% 1/4W	
R650	1-249-429-11	CARBON 10K 5% 1/4W	
R651	1-249-429-11	CARBON 10K 5% 1/4W	
R652	1-249-429-11	CARBON 10K 5% 1/4W	
R653	1-249-429-11	CARBON 10K 5% 1/4W	
R654	1-249-437-11	CARBON 47K 5% 1/4W	
R655	1-247-807-31	CARBON 100 5% 1/4W	
R656	1-247-807-31	CARBON 100 5% 1/4W	
R657	1-247-807-31	CARBON 100 5% 1/4W	
R658	1-247-807-31	CARBON 100 5% 1/4W	
R659	1-247-807-31	CARBON 100 5% 1/4W	
R660	1-247-807-31	CARBON 100 5% 1/4W	
R661	1-249-415-11	CARBON 680 5% 1/4W	F
R662	1-249-416-11	CARBON 820 5% 1/4W	F
R663	1-249-418-11	CARBON 1.2K 5% 1/4W	F
R664	1-249-419-11	CARBON 1.5K 5% 1/4W	F
R665	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R666	1-247-843-11	CARBON 3.3K 5% 1/4W	
R667	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R668	1-249-428-11	CARBON 8.2K 5% 1/4W	F
R669	1-249-419-11	CARBON 1.5K 5% 1/4W	F
R670	1-249-419-11	CARBON 1.5K 5% 1/4W	F
R671	1-249-419-11	CARBON 1.5K 5% 1/4W	F
R672	1-249-418-11	CARBON 1.2K 5% 1/4W	F
R673	1-249-416-11	CARBON 820 5% 1/4W	F
R674	1-249-415-11	CARBON 680 5% 1/4W	F
R675	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R676	1-247-843-11	CARBON 3.3K 5% 1/4W	

Ref. No.	Part No.	Description			Remarks
R677	1-249-425-11	CARBON	4.7K	5%	1/4W F
R678	1-249-428-11	CARBON	8.2K	5%	1/4W F
R679	1-249-434-11	CARBON	27K	5%	1/4W
R680	1-249-434-11	CARBON	27K	5%	1/4W
R681	1-249-415-11	CARBON	680	5%	1/4W F
R682	1-249-416-11	CARBON	820	5%	1/4W F
R683	1-249-418-11	CARBON	1.2K	5%	1/4W F
R684	1-249-419-11	CARBON	1.5K	5%	1/4W F
R685	1-249-421-11	CARBON	2.2K	5%	1/4W F
R686	1-247-843-11	CARBON	3.3K	5%	1/4W
R687	1-249-429-11	CARBON	10K	5%	1/4W
R688	1-249-429-11	CARBON	10K	5%	1/4W
R689	1-249-424-11	CARBON	3.9K	5%	1/4W F
R691	1-247-807-31	CARBON	100	5%	1/4W
R692	1-249-429-11	CARBON	10K	5%	1/4W
R693	1-249-429-11	CARBON	10K	5%	1/4W
R694	1-249-429-11	CARBON	10K	5%	1/4W
R695	1-249-429-11	CARBON	10K	5%	1/4W
R696	1-249-429-11	CARBON	10K	5%	1/4W
R697	1-249-429-11	CARBON	10K	5%	1/4W
R698	1-249-429-11	CARBON	10K	5%	1/4W
R699	1-249-429-11	CARBON	10K	5%	1/4W
		< IC >			
RM601	8-759-827-70	IC NJL64H400A-1 (R)			
		< SWITCH >			
S601	1-762-196-21	SWITCH, TACT (REC PAUSE/START)			
S602	1-762-196-21	SWITCH, TACT (CD SYNC)			
S603	1-762-196-21	SWITCH, TACT (▶▶+)			
S604	1-762-196-21	SWITCH, TACT (▶▶I)			
S605	1-762-196-21	SWITCH, TACT (II)			
S606	1-762-196-21	SWITCH, TACT (▷)			
S607	1-762-196-21	SWITCH, TACT (■)			
S608	1-762-196-21	SWITCH, TACT (I◀◀)			
S609	1-762-196-21	SWITCH, TACT (◀◀-)			
S612	1-762-196-21	SWITCH, TACT (MOVIE EQ)			
S613	1-762-196-21	SWITCH, TACT (EFFECT ON/OFF)			
S614	1-762-196-21	SWITCH, TACT (GAME EQ)			
S615	1-762-196-21	SWITCH, TACT (MUSIC EQ)			
S616	1-762-196-21	SWITCH, TACT (DISPLAY)			
S617	1-762-196-21	SWITCH, TACT (GAME)			
S618	1-762-196-21	SWITCH, TACT (TAPE A/B)			
S619	1-762-196-21	SWITCH, TACT (TUNER/BAND)			
S620	1-762-196-21	SWITCH, TACT (CD)			
S623	1-762-196-21	SWITCH, TACT (GROOVE)			
S624	1-762-196-21	SWITCH, TACT (⏏OPEN/CLOSE)			
S625	1-762-196-21	SWITCH, TACT (DISC3)			
S626	1-762-196-21	SWITCH, TACT (DISC2)			
S627	1-762-196-21	SWITCH, TACT (DISC1)			
S628	1-762-196-21	SWITCH, TACT (DISC SKIP EX-CHANGE)			
S629	1-762-196-21	SWITCH, TACT (I/⏻)			
		< VARIABLE RESISTOR >			
SFR601	1-241-762-11	RES, ADJ, CARBON 2.2K			

Ref. No.	Part No.	Description			Remarks
		< ROTARY ENCODER >			
VR601	1-418-725-11	ENCODER, ROTARY (12 TYPE)(VOLUME)			
		< VIBRATOR >			
X601	1-795-398-11	VIBRATOR, CRYSTAL 6MHz			
**********					
	A-4726-510-A	POWER BOARD, COMPLETE			(DX10/RG20:US, CND)
		**********			
	A-4726-770-A	POWER BOARD, COMPLETE (RG20:AEP, UK)			
		**********			
	A-4726-777-A	POWER BOARD, COMPLETE (RG30T)			
		**********			
	A-4726-781-A	POWER BOARD, COMPLETE (RG4SR)			
		**********			
		< CAPACITOR >			
C501	1-126-964-11	ELECT	10uF	20% 50V	
C502	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C503	1-162-282-31	CERAMIC	100PF	10% 50V	
C504	1-128-551-11	ELECT	22uF	20% 25V	
C507	1-130-493-00	MYLAR	0.068uF	5% 50V	
C508	1-130-493-00	MYLAR	0.068uF	5% 50V	
C509	1-128-560-11	ELECT	22uF	20% 100V	(RG4SR/RG30T)
C509	1-126-965-11	ELECT	22uF	20% 50V	(DX10/RG20)
C511	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C512	1-162-294-31	CERAMIC	0.001uF	10% 50V	(RG20:AEP, UK)
C513	1-164-159-11	CERAMIC	0.1uF	50V	(RG20:AEP, UK)
C541	1-130-777-00	MYLAR	0.1uF	10% 100V	
C542	1-135-928-11	ELECT	2200uF	20% 63V	(RG4SR/RG30T)
C542	1-135-832-11	ELECT	2200uF	20% 50V	(DX10/RG20)
C543	1-164-159-11	CERAMIC	0.1uF	50V	
C544	1-126-942-61	ELECT	1000uF	20% 25V	
C545	1-128-549-11	ELECT	3300uF	20% 35V	
C551	1-126-964-11	ELECT	10uF	20% 50V	
C552	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C553	1-162-282-31	CERAMIC	100PF	10% 50V	
C554	1-128-551-11	ELECT	22uF	20% 25V	
C557	1-130-493-00	MYLAR	0.068uF	5% 50V	
C558	1-130-493-00	MYLAR	0.068uF	5% 50V	
C559	1-128-560-11	ELECT	22uF	20% 100V	(RG4SR/RG30T)
C559	1-126-965-11	ELECT	22uF	20% 50V	(DX10/RG20)
C591	1-130-777-00	MYLAR	0.1uF	10% 100V	
C592	1-135-928-11	ELECT	2200uF	20% 63V	(RG4SR/RG30T)
C592	1-135-832-11	ELECT	2200uF	20% 50V	(DX10/RG20)

POWER SENSOR

Ref. No.	Part No.	Description	Remarks
		< CONNECTOR >	
CN502	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P	
CN503	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P	
* CN504	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P	(RG4SR/RG30T)
		< DIODE >	
D501	8-719-991-33	DIODE 1SS133T-77	
D502	8-719-991-33	DIODE 1SS133T-77	
D541	8-719-510-68	DIODE D5SBA204101	
D542	8-719-200-82	DIODE 11ES2-NTA1B	
D543	8-719-200-82	DIODE 11ES2-NTA1B	
D551	8-719-991-33	DIODE 1SS133T-77	
		< TERMINAL >	
* EP501	1-537-738-21	TERMINAL, EARTH (RG20:AEP, UK)	
* EP502	1-537-738-21	TERMINAL, EARTH	
		< IC >	
IC501	8-749-016-95	IC STK402-100S (RG4SR)	
IC501	8-749-016-94	IC STK402-090S (RG30T)	
IC501	8-749-016-93	IC STK402-070S (DX10/RG20)	
		< TRANSISTOR >	
Q501	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q503	8-729-140-82	TRANSISTOR 2SA988TP-PAFAEA	
Q504	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q551	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q581	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q582	8-729-119-78	TRANSISTOR 2SC2785TP-HFE	(RG4SR/RG30T)
Q583	8-729-029-86	TRANSISTOR DTC124ES (RG4SR/RG30T)	
Q584	8-729-119-78	TRANSISTOR 2SC2785TP-HFE	(RG4SR/RG30T)
		< RESISTOR >	
R501	1-249-417-11	CARBON 1K 5% 1/4W F	
R502	1-249-438-11	CARBON 56K 5% 1/4W	
R503	1-249-420-11	CARBON 1.8K 5% 1/4W F	(RG30T)
R503	1-249-419-11	CARBON 1.5K 5% 1/4W F	(RG4SR)
R503	1-249-421-11	CARBON 2.2K 5% 1/4W F	(DX10/RG20)
R504	1-249-438-11	CARBON 56K 5% 1/4W	
R505	1-249-417-11	CARBON 1K 5% 1/4W F	
R506	1-249-431-11	CARBON 15K 5% 1/4W	
R507	1-249-441-11	CARBON 100K 5% 1/4W	
⚠R508	1-217-156-00	METAL 0.22 10% 5W	(RG4SR/RG30T)
⚠R508	1-217-151-00	METAL 0.22 10% 2W	(DX10/RG20)
R509	1-260-076-11	CARBON 10 5% 1/2W	
⚠R510	1-217-156-00	METAL 0.22 10% 5W	(RG4SR/RG30T)
⚠R510	1-217-151-00	METAL 0.22 10% 2W	(DX10/RG20)
⚠R511	1-212-881-11	FUSIBLE 100 5% 1/4W	
⚠R512	1-202-972-61	FUSIBLE 1 5% 1/4W	
R513	1-249-433-11	CARBON 22K 5% 1/4W	
R514	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R515	1-249-433-11	CARBON 22K 5% 1/4W	
R516	1-249-429-11	CARBON 10K 5% 1/4W	
R517	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R518	1-249-429-11	CARBON 10K 5% 1/4W	
R519	1-249-433-11	CARBON 22K 5% 1/4W	
R520	1-247-883-00	CARBON 150K 5% 1/4W	(RG4SR/RG30T)
R521	1-249-441-11	CARBON 100K 5% 1/4W	(RG4SR/RG30T)
R522	1-249-441-11	CARBON 100K 5% 1/4W	(RG4SR/RG30T)
R523	1-249-409-11	CARBON 220 5% 1/4W F	(RG4SR/RG30T)
R524	1-247-897-11	CARBON 560K 5% 1/4W	(RG4SR/RG30T)
R525	1-249-437-11	CARBON 47K 5% 1/4W	(RG4SR/RG30T)
R541	1-260-115-11	CARBON 22K 5% 1/2W	
R551	1-249-417-11	CARBON 1K 5% 1/4W F	
R552	1-249-438-11	CARBON 56K 5% 1/4W	
R553	1-249-420-11	CARBON 1.8K 5% 1/4W F	(RG30T)
R553	1-249-419-11	CARBON 1.5K 5% 1/4W F	(RG4SR)
R553	1-249-421-11	CARBON 2.2K 5% 1/4W F	(DX10/RG20)
R554	1-249-438-11	CARBON 56K 5% 1/4W	
R555	1-249-417-11	CARBON 1K 5% 1/4W F	
R556	1-249-431-11	CARBON 15K 5% 1/4W	
R557	1-249-441-11	CARBON 100K 5% 1/4W	
⚠R558	1-217-156-00	METAL 0.22 10% 5W	(RG4SR/RG30T)
⚠R558	1-217-151-00	METAL 0.22 10% 2W	(DX10/RG20)
R559	1-260-076-11	CARBON 10 5% 1/2W	
⚠R560	1-217-156-00	METAL 0.22 10% 5W	(RG4SR/RG30T)
⚠R560	1-217-151-00	METAL 0.22 10% 2W	(DX10/RG20)
⚠R561	1-212-881-11	FUSIBLE 100 5% 1/4W	
R581	1-249-435-11	CARBON 33K 5% 1/4W	
R582	1-249-435-11	CARBON 33K 5% 1/4W	
R591	1-260-115-11	CARBON 22K 5% 1/2W	
**********			
	1-681-442-11	SENSOR BOARD (RG4SR/RG30T)	
		**********	
		< THERMISTOR >	
TH501	1-807-796-11	THERMISTOR (RG4SR/RG30T)	
**********			

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Ref. No.	Part No.	Description			Remarks
	1-682-124-11	SPDL BOARD			
		**********			
		< CONNECTOR >			
CN01	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P			
		< SWITCH >			
S01	1-771-853-11	SWITCH, DETECTION (LIMIT SW)			
**********					
	A-4726-513-A	SUB TRANS BOARD, COMPLETE			
		(RG4SR/RG20:US, CND/RG30T)			
		**********			
	A-4726-772-A	SUB TRANS BOARD, COMPLETE			
		(RG20:AEP, UK)			
		**********			
	A-4726-922-A	SUB TRANS BOARD, COMPLETE (DX10:AUS)			
		**********			
	A-4726-925-A	SUB TRANS BOARD, COMPLETE			
		(DX10:MY, SP, TW, E2, E3, E51)			
		**********			
	A-4726-928-A	SUB TRANS BOARD, COMPLETE (DX10:MX)			
		**********			
	A-4726-929-A	SUB TRANS BOARD, COMPLETE (DX10:AR)			
		**********			
		< CAPACITOR >			
⚠C901	1-113-925-11	CERAMIC	0.01uF	20%	250V
C902	1-126-936-11	ELECT	3300uF	20%	16V
C903	1-126-933-11	ELECT	100uF	20%	16V
		< CONNECTOR >			
CN2	1-568-106-11	PIN, CONNECTOR 4P			
		(DX10:MY, SP, TW, E2, E3, E51)			
* CN2	1-564-321-21	PIN, CONNECTOR 2P			
		(DX10:MX, AR, AUS/RG4SR/RG20/RG30T)			
CN901	1-564-321-00	PIN, CONNECTOR 2P			
* CN903	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
		< DIODE >			
D901	8-719-991-33	DIODE 1SS133T-77			
D902	8-719-200-82	DIODE 11ES2-NTA1B			
D903	8-719-200-82	DIODE 11ES2-NTA1B			
D904	8-719-200-82	DIODE 11ES2-NTA1B			
D905	8-719-200-82	DIODE 11ES2-NTA1B			
		< IC >			
IC901	8-759-158-62	IC TA78057S			
		< TRANSISTOR >			
Q901	8-729-119-78	TRANSISTOR	2SC2785TP-HFE		
		< RESISTOR >			
R902	1-249-429-11	CARBON	10K	5%	1/4W
		< RELAY >			
⚠RY901	1-755-276-11	RELAY, POWER			

Ref. No.	Part No.	Description			Remarks
		< TRANSFORMER >			
⚠T901	1-435-824-21	TRANSFORMER, POWER (RG20:AEP, UK)			
⚠T901	1-435-823-21	TRANSFORMER, POWER			
		(RG4SR/RG20:US, CND/RG30T)			
⚠T901	1-435-825-21	TRANSFORMER, POWER (DX10)			
**********					
	A-4726-921-A	TRANS BOARD, COMPLETE (DX10:AR, AUS)			
		**********			
	A-4726-927-A	TRANS BOARD, COMPLETE (DX10:MX)			
		**********			
	A-4726-924-A	TRANS BOARD, COMPLETE			
		(DX10:MY, SP, TW, E2, E3, E51)			
		**********			
	A-4726-771-A	TRANS BOARD, COMPLETE (RG20:AEP, UK)			
		**********			
	A-4726-512-A	TRANS BOARD, COMPLETE			
		(RG20:US, CND/RG30T)			
		**********			
	A-4726-782-A	TRANS BOARD, COMPLETE (RG4SR)			
		**********			
		< CAPACITOR >			
C911	1-128-553-11	ELECT	220uF	20%	63V
C912	1-126-964-11	ELECT	10uF	20%	50V
C913	1-126-968-11	ELECT	100uF	20%	50V
C915	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CN915	1-564-528-11	PLUG, CONNECTOR 13P			
		< DIODE >			
D911	8-719-200-82	DIODE 11ES2-NTA1B			
D912	8-719-982-15	DIODE MTZJ-T-77-27B			
D913	8-719-109-89	DIODE MTZJ-T-77-5.6B			
		< FUSE >			
⚠F914	1-532-506-31	FUSE 6.3A/250V (RG20:AEP, UK)			
⚠F914	1-533-473-11	FUSE, GLASS TUBE (DIA. 5) 6.3A/250V (DX10)			
⚠F917	1-533-468-11	FUSE, GLASS TUBE 2A/250V (DIA. 5)			
		(DX10:MY, SP, TW, E2, E3, E51, AUS/RG20:AEP, UK)			
⚠F917	1-533-469-11	FUSE, GLASS TUBE (DIA. 5) 2.5A/250V			
		(DX10:MY, SP, TW, AR, E2, E3, E51)			
⚠F918	1-533-468-11	FUSE, GLASS TUBE 2A/250V (DIA. 5)			
		(DX10:MY, SP, TW, E2, E3, E51, AUS/RG20:AEP, UK)			
⚠F918	1-533-469-11	FUSE, GLASS TUBE (DIA. 5) 2.5A/250V			
		(DX10:MY, SP, TW, AR, E2, E3, E51)			
⚠F919	1-533-452-11	FUSE, GLASS TUBE (DIA. 5) 4A/125V			
		(RG20:US, CND)			
⚠F919	1-533-453-11	FUSE, GLASS TUBE (DIA. 5) 5A/125V (RG30T)			
⚠F919	1-533-454-11	FUSE, GLASS TUBE (DIA. 5) 6.3A/125V			
		(RG4SR)			
⚠F919	1-533-471-11	FUSE, GLASS TUBE (DIA. 5) 4A/250V			
		(DX10:MY, SP, TW, MX, E2, E3, E51)			
⚠F920	1-533-454-11	FUSE, GLASS TUBE (DIA. 5) 6.3A/125V			
		(RG4SR)			

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TRANS VIDEO OUT

Ref. No.	Part No.	Description				Remarks
		< FUSE HOLDER >				
* FH901	1-533-213-31	HOLDER, FUSE (DX10:MY, SP, TW, MX, E2, E3, E51/RG4SR/RG20/RG30T)				
* FH902	1-533-213-31	HOLDER, FUSE (DX10:MY, SP, TW, MX, E2, E3, E51/RG4SR/RG20/RG30T)				
* FH903	1-533-213-31	HOLDER, FUSE (DX10:MY, SP, TW, E2, E3, E51)				
* FH904	1-533-213-31	HOLDER, FUSE (DX10:MY, SP, TW, E2, E3, E51)				
* FH905	1-533-213-31	HOLDER, FUSE (DX10:MY, SP, TW, AR, E2, E3, E51, AUS)				
* FH906	1-533-213-31	HOLDER, FUSE (DX10:MY, SP, TW, AR, E2, E3, E51, AUS)				
* FH907	1-533-213-31	HOLDER, FUSE (DX10/RG4SR)				
* FH908	1-533-213-31	HOLDER, FUSE (DX10/RG4SR)				
* FH909	1-533-213-31	HOLDER, FUSE (DX10/RG4SR)				
* FH910	1-533-213-31	HOLDER, FUSE (DX10/RG4SR)				
		< TRANSISTOR >				
Q911	8-729-048-52	TRANSISTOR	2SA1932(TP)			
		< RESISTOR >				
R905	1-249-429-11	CARBON	10K	5%	1/4W	
⚠R911	1-217-637-00	FUSIBLE	1	5%	1/4W	
R912	1-249-417-11	CARBON	1K	5%	1/4W	F
R913	1-249-429-11	CARBON	10K	5%	1/4W	
R915	1-247-807-31	CARBON	100	5%	1/4W	
R916	1-247-807-31	CARBON	100	5%	1/4W	
R918	1-219-777-11	CARBON	3.3M (RG4SR/RG20:US, CND/RG30T)	10%	1/2W	
R918	1-219-237-11	SOLID	3.3M (RG4SR/RG20:US, CND/RG30T)	20%	1/2W	
⚠R919	1-219-122-91	FUSIBLE	0.33	5%	1/4W	
⚠R920	1-219-122-91	FUSIBLE	0.33	5%	1/4W	
		< SWITCH >				
⚠S901	1-786-055-11	SELECTOR, VOLTAGE (VOLTAGE SELECTOR) (DX10:MY, SP, TW, E2, E3, E51)				
**********						
	A-4726-511-A	VIDEO OUT BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C642	1-162-294-31	CERAMIC	0.001uF	10%	50V	
		< CONNECTOR >				
CN605	1-564-505-11	PLUG, CONNECTOR 2P				
		< JACK >				
JK602	1-774-227-11	JACK, PIN 1P (VIDEO OUT)				
**********						

Ref. No.	Part No.	Description	Remarks
		MISCELLANEOUS	
		**********	
9	1-791-897-11	WIRE (FLAT TYPE) (19 CORE)	
74	1-796-122-11	DECK, MECH	
75	1-823-058-11	WIRE (FLAT TYPE) (17 CORE)	
⚠103	1-791-901-21	CORD, POWER (DX10:MX, E2, E3)	
⚠103	1-690-608-11	CORD, POWER (DX10:AUS)	
⚠103	1-777-071-81	CORD, POWER (DX10:MY, SP, TW, E51/RG20:AEP, UK)	
⚠103	1-783-532-11	CORD, POWER (RG4SR/RG20:US, CND/RG30T)	
⚠103	1-783-941-22	CORD, POWER (DX10:AR)	
159	1-791-983-11	WIRE (FLAT TYPE) (8 CORE)	
166	1-471-035-11	MAGNET ASSY	
187	1-823-059-11	WIRE (FLAT TYPE) (16 CORE)	
⚠188	A-4735-357-A	BASE ASSY, OP (KSM-213D)	
M721	1-541-632-11	MOTOR, DC (TURN)	
M961	1-763-072-11	FAN, DC (RG4SR/RG30T)	
⚠T911	1-437-385-11	TRANSFORMER, POWER (RG20:US, CND)	
⚠T911	1-437-386-11	TRANSFORMER, POWER (RG20:AEP, UK)	
⚠T911	1-437-387-11	TRANSFORMER, POWER (DX10)	
⚠T911	1-437-388-11	TRANSFORMER, POWER (RG4SR)	
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-872-09	SCREW +BVTT 3X8 (S)	
#2	7-685-871-01	SCREW +BVTT 3X6 (S)	
#3	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#5	7-685-880-09	SCREW +BVTT 4X6 (S)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2001.06	New
1.1	2003.05	Correction of Ref.No.64,67 (SPM-03023)
1.2	2003.11	Change of Part No. for Ref. No.188 (KSM-213D) (SPM-03061)